

## SEQUENCE LISTING

**SEQ ID 1**

ATGGGGCAAACAAAAAGTAAATATGCCCTTATCTCAGCTTATTAAAATTCTTTAAAAGAGGGGGAGTTAAAGTATCTACAA  
 AAAATCTAATCAAGCTATTCAAAATAAGAACATTTGCCCATGGTTCCAGAACAGGAACCTTAGATCTAAAGATTGAAAAGAATTGGTAA  
 GGAACACTAAACAAGCAGGTAGGAAGGGTAATATCATTCCACTACAGTATGGAATGATTGGCCATTATAAACGAGCTTAAAGACCATTCAA  
 GAAGAAGATACCGTTCACTGATGCCCTGGAAGCTGTATAATAGATTGAAATGAAAACACAAGGAAAAAATCCCAGAACAGAACGGAGTT  
 TACATTGCGAATATGTAACAGGCCAGTGGCTAGTCACCGAACATGGTACTATAATCAATTACAGGAGGTGATATATCCTGAAACCGTTAA  
 ATTAGAAGGAAAGGTCCAGAATTAGTGGGCCATCAGACTAAACACAGGAGCACAGTCTCTCCAGCAGGTAGGTGCTGTAACATTACAA  
 CCTCTAAAGCAGGTTAAAGAAAATAAGACCAACGCCAGTGGCTATCAATTACTGCCCTGGCTGAACTTCAGTATCGGCCACCCCCAGAAAGTC  
 AGTATGGATATCCAGGAATGCCAGCACCACAGGGCAGGGCCATACCCCTAGCCGCCCCACTAGGAGACTTAAATCTACGGCACCACCTAGTAG  
 ACAGGGTAGTAAATTACATGAAATTAGTGGCTAGTCACAGGAGACTTGGCTAGTCAGGAGATCTCCAGTAACTGAGGATGAGCTGACCTG  
 GGAGAAGGAGGCCAAGAGGGAGAGCCTCCACAGTGGAGGCCAGTACAAGTCTTTTGATAAAAAGCTAAAGATATGAAAGAGGGAGTAAAC  
 AGTATGGACCCACTCCCTTATATGAGGACATTATTAGTCTATGCTCATGGACATAGACTCATTCTTATGTTGGAGATTCTGGCAAATC  
 GTCTCTCACCCCTCAATTTCACATTAAAGACTTGGGATGTTGATGGGTACAGAACGGTCTTAACTGAGGATGAGCTGAGGAGCTG  
 AACATAGATGAGATCAACTATTAGGAATAGTCAAAATTGGAGTACTATTAGTCACACAGGATGAGCTTAACTGAGGAGCTGAGGAGCTG  
 CTATCTGCCCTAGAGCCTGGGAAAGG  
 GAGG  
 TCAAATTGGTCACTTAAAGAAAATTGCCCCAGTCTAAATAACAGAATATAACTATTCAAGCAACTACACAGGAGGAGGAGGAGGAGGAGGAGG  
 CCAAGATGTAAGGAAACATTGGGCTAGTCATGCTCTAAATTGATAAAAATGGCAACCATTGTCGGAAACACAGGAGGAGGAGGAGGAGGAGG  
 CTCAGGCCACAACAAACTGGGCAATTCCAACTCAGGACATTGTCGGAAACACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 AATAAGCCAGTTACCAACAAACAAATTGCCCCGCCACAAGCGGCAGTCAGCAGCAG

**SEQ ID 2**

ATGGGGCAAACAAAAAGTAAATATGCCCTTATCTCAGCTTATTAAAATTCTTTAAAAGAGGGGGAGTTAAAGTATCTACAA  
 AAAATCTAATCAAGCTATTCAAAATAAGAACATTTGCCCATGGTTCCAGAACAGGAACCTTAGATCTAAAGATTGAAAAGAATTGGTAA  
 GGAACACTAAACAAGCAGGTAGGAAGGGTAATATCATTCCACTACAGTATGGAATGATTGGCCATTATAAACGAGCTTAAAGACCATTCAA  
 GAAGAAGATACCGTTCACTGATGCCCTGGAAGCTGTATAATAGATTGAAATGAAAACACAAGGAAAAAATCCCAGAACAGAACGGAGTT  
 TACATTGCGAATATGTAACAGGCCAGTGGCTAGTCACCGAACATGGGATGAGCTAAATTACAGGAGGTGATATATCCTGAAACCGTTAA  
 ATTAGAAGGAAAGGTCCAGAATTAGTGGGCCATCAGACTCTAAACACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 CCTCTAAAGCAGGTTAAAGAAAATAAGACCAACGCCAGTGGCTATCAATTACTGCCCTCCGGCTGAACTTCAGTATGCCACCCCCAGAAAGTC  
 AGTATGGATATCCAGGAATGCCAGCACCACAGGGCAGGGCGCATACCCCTAGCCGCCCCACTAGGAGACTTAACTCTACGGCACCACCTAGTAG  
 ACAGGGTAGTAAATTACATGAAATTAGTGGCTAGTCACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 GGAGAAGGAGGCCAAGAGGGAGAGCCTCCACAGTGGAGGCCAGTACAAGTCTTTTGATAAAAAGCTAAAGGAGGAGGAGGAGGAGGAGGAGG  
 AGTATGGACCCACTCCCTTATATGAGGACATTATTAGTCTATGCTCATGGACATAGACTCATTCTTATGTTGGGAGTTCTGGCAAATC  
 GTCTCTCACCCCTCAATTTCACATTAAAGACTTGGGATGTTGATGGGTACAGAACGGTCCGAAGAAATAGGGCTGCCAATCCTCAGTT  
 AACATAGATGAGATCAACTATTAGGAATAGTCAAATTGGAGTACTATTAGTCACAAAGCATTATGCAAATTGCAAATTGAGGAGGAGGAGGAGG  
 CTATCTGCCCTAGAGCCTGGGAAAGG  
 TTTTGTGGCAAGGCTCCAAGATGTTGCTAAAGTCATTGCTGATGAAAAGGCCAGTGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 CCTGAGTGTCACTCAGGCAATTAAAGGAAGG  
 GAGGAGTGTATAAGCTATGGCTCAAGGCAAAACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 TCAAATTGGTCACTTAAAGAAAATTGCCCCAGTCTAAATAACAGAATATAACTATTCAAGCAACTACACAGGAGGAGGAGGAGGAGGAGGAGG  
 CCAAGATGTAAGGAAACATTGGGCTAGTCATGCTCTAAATTGATAAAAATGGCAACCATTGTCGGAAACGAGCAAAAGGGCCAGC  
 CTCAGGCCACAACAAACTGGGCAATTCCAACTCAGGACATTGTCGGAAACACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 AATAAGCCAGTTACCAACAAACAAATTGCCCCGCCACAAGCGGCAGTCAGCAGCAG

**SEQ ID 3**

ATGGGGCAAACAAAAAGTAAATATGCCCTTATCTCAGCTTATTAAAATTCTTTAAAAGAGGGGGAGTTAGAGTATCTACAA  
 AAAATCTAATCAAGCTATTCAAAATAAGAACATTTGCCCATGGTTCCAGAACAGGAACCTTAGATCTAAAGATTGAAAAGAATTGGCGA  
 GGAACACTAAACAAGCAGGTAGAACAGGTAAATATCATTCCACTACAGTATGGAATGATTGGCCATTATAAACGAGCTTAAAGACCATTCAA  
 AAAGAAGATAGCGTTCACTGATGCCCTGGAAGCTGTGTAATAGATTGAAATGAAAAGACAGGAGAACATCCCAGAACAGAACAGAACAGT  
 TACATTGCGAATATGTAACAGGCCAGTAACTGCTCAGTCACGCAAATGGAGCTATAATCAATTACAGGGGTGATATATCCTGAAACGTTAA  
 ATTAGAAGGAAAGGTCCAGAATTAGTGGGCCATCAGAGTCATAACCCACAGGAGGGCAAGTCCTTCCAGCAGGTAGGTGCCGTAACATTCAA  
 CCTCTAAACGAGGTTAAAGAAAATAAGACCAACGCCAGTGGCTATCAACTGGCCGGGTGAACTTCAGTATCTGCCACCCCCAGAACAGTC  
 AGTATGGATATCCAGGAATGCCAGCAGTACAGGGCAGGGCGCATACCTCTAGCCGCCCCACTGTGAGGAGCTTAACTCTACAGCATCAGTAGTGG  
 ACAAGGGGTACACTGCACGCAGTCATTGATGAAAGCAGAACAGGGAGATCTTGAGGAGTGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
 GGGGAAGGAGACTCAAGTAGGAGGCCCTGCCGAGCTGAGAGACTAGATGTAACCTTCAACCATGAAAGATATAAGGAAGGAGTAAAC  
 AATATGGATCCAACCTCCCTTATATAAGAACATTAGTCCATTGCTCATGGAAATAGACTTACTCTTATGACTGGGAAAGTTGGCCAAATC

TTCCCTTCATCCTCTCAGTATCTACAGTTAAACCTGGTGGATTGATGGAGTACAAGAACAGGTACGAAAAAATCAGGCTACTAAGGCCACTGTT  
AATATAGACGCAGACCAATTGTTAGGAACAGGTCAAATTGGACCCATTAAACCAACAATCAGTGATGCCAAATGAGGCTATTGAAACAAGTAAGGG  
CTATTTGCCCTAGGGCCTGGGGAAAATTAGGACCCAGGAACAGCTTCCCTATTAAATTCAATTAGACAAGGCTAAAGAGCCATATCCTGACTT  
TGTGGCAAGATTACAAGATGCTCAAAGTCTATTACAGATGACAATGCCGAAAAGTTATTGAGAATTATGGCCTATGAAAATGCAAATCCA  
GAATGTCAGTCGGCCATAAAGCCTTAAAGGAAAAGTCCAGCAGGAGTTGATGTAATTACAGAATATGTAAGGGCTGTGATGGGATTGGAGGAG  
CTATGCAAAAGGCAATGCTATGGCTCAAGCAATGAGGGCTCACTTAGGAGGCAAGTTAGAACATTGGGAAAAATGTTATAATTGTTGCA  
ATATGGTCACTGAAAAGGAGTTGCCAGCTTAAATAAACAGAATAATAAACAGCTATTACAGCAAAAATGGCCATCTGGCTGTG  
CCAAATGTGAAAAGGAAAACATTGGGCAATTCAATGCTATTCTAAATTGATAAAAGATGGCAACCATTGTCGGGAAACAGGAAGAGGGCCAGC  
CTCAGGCCCCCAACAACTGGGCTTCCAGTCAAGTGTGTTCTCAGGGTTCAAGGACAACAAACCCCTACAGAAAATACCACCACTCA  
GGGAGTCAGCCAATTACAACAACTCAACAGCTGTCCCCGCCACAGCAGGCCACAGTAG

**SEQ ID 4**

ATGGGCAAACCTAAAGTAAATTAAAGTAAATATGCCCTTATCTCAGCTTATTAAAATTCTTTAAAAAGAGGGGAGTTAAAGTATCTACAA  
AAAATCTAATCAAGCTATTCTAAATAATAGAACAAATTGCCCATGGTTCCAGAACAGGAATTCTCAGATCTAAAGATTGAAAAGAATTGGTAA  
GGAACCTAAACAAGCAGGAGGGTAATATCATTCCACTTACAGTATGGAATGATTGGGCAATTAAAACAGCTTTAGAACCTTCAACAA  
GAAGAAGATAGCATTCAGTTCTGATGCCCTGGAAGCTGTTAAAGATTGAAATGAAAACACAAGGAAAATCCAGAACAGAACCCGAAAGTT  
TACATTGCAATATGTTAGCAGGCCGTAATGGCTCAGTCACCGAAATGTTGACTATAATCAATTACAGGAGGTGATATATCCTGAAACGTTAAA  
ATTAGAAGGAAAAGTCCAGAATTATGGGCAATTAGAGCTAAACACAGGAGCACAGTCCTTCCAGCAGGTCAGGTGCTGAAGATTACAA  
CCTCAAAAGCAGGTTAAAGAAAATAAGACCCAACCGCAAGTAGCCTATCAACTGCGCTGGCTGAACTTCAGTATCGGCCACCCCAAGAACGTC  
GTATGGATATCCAGGAATGCCCAAGCACACAGGGCAGGGCAGGCCATACCATCAGCCCAACTAGGAGACTTAATCTATGCCACCCACTAGA  
CAGGGTAGTGAATTACATGAAATTATTGATAATCAAGAAAGAAGGAGACTTGAGGATGGCAATTCCCAGTAA

**SEQ ID 5**

MGQTTSKIKSKYASYLSFIKILLKRGGVVKVSTKNLIKLFQIIEQFCPWFPQGTLDLKDWKRIGKELKQAGRGNIIPLTVNDWAIKAALEPFQT  
EEDSVSVDAPGSCIIDCNENTRKKSQKETEGLHCEYVAEPVMAQSTQNVDYNQLQEVIYPETLKLEGKPELVGPSESKPRGTSPLPAGQPVTLQ  
PQKQVKENKTQPPVAYQWPPAELQYRPPESQYGPMPAPQGRAPYQPPTRLNPTAPPSRQGSKLHEIIDKSKEGDTEAWQFPVTLEPMPP  
GEGAQEPEPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLLDSIAHGHLIIPYDWEILAKSSLSPSQFLQFKTWIDGVQEVRNRANPPV  
NIDADQLLGIGQNWNSTISQALMQNEAEQVRAICLRAWEKIQDPGTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIADEKARKVIVELMAYENAN  
PECQSAIKPLKGKVPAGSDIVEYVKACDGIGGAMYKAMLMQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPVNQNIITQATTGREPPDLC  
PRCKKGKHWAQCRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPQGFQGQQPLSQVFQGISQLPQYNNCPPPQAAVQQ

**SEQ ID 6**

MGQTTSKTKSKYASYLSFIKILLKRGGVVKVSTKNLIKLFQIIEQFCPWFPQGTLDLKDWKRIGKELKQAGRGNIIPLTVNDWAIKAALEPFQT  
KEDSVSVDAPGSCVIDCNEKTGRKSQKETEGLHCEYVTEPVMAQSTQNVDYNQLQEVIYPETLKLEGKPELVGPSESKPRGTSPLPAGQPVTLQ  
PQKQVKENKTQPPVAYQWPPAELQYLPPESESQYGPMPAPQGRAPYQPPTVRLNPTASRSGQGTLHAVIDEARKQGDLEAWRFLVILQLVQA  
GEETQVQPARAETRCEPFTMKMLKDIKEGVKQYGSNSPYIRTLLDSIAHGHLIIPYDWEISLAKSSLSSQYLQFKTWIDGVQEVRKNQATKPTV  
NIDADQLLGIGPNWSTINQSVMQNEAEQVRAICLRAWGKIQDPGTAFFINSIRQGSKEPYPDFVARLQDAAQKSIITDDNARKVIVELMAYENANP  
ECQSAIKPLKGKVPAGDVITEYVKACDGIGGAMYKAMLMQAQMRGLTLGGQVRTFGKKCYNCGQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLC  
PKCGKGKHWAQCHSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPQGFQGQQPLSQVFQGISQLPQYNNCPPPQAAVQQ

**SEQ ID 7**

MGQTTSKIKSKYASYLSFIKILLKRGGVVKVSTKNLIKLFQIIEQFCPWFPQGTLDLKDWKRIGKELKQAGRGNIIPLTVNDWAIKAALEPFQT  
EEDSVSVDAPGSCVIDCNEKTGRKSQKETEGLHCEYVAEPVMAQSTQNVDYNQLQEVIYPETLKLEGKPELVGPSESKPRGTSPLPAGQPVTLQ  
PQKQVKENKTQPPVAYQWPPAELQYRPPESQYGPMPAPQGRAPYQPPTRLNPTAPPSRQGSKLHEIIDKSKEGDTEAWQFPVTLEPMPP  
GEGAQEPEPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLLDSIAHGHLIIPYDWEIQAKSSLSPSQFLQFKTWIDGVQEVRNRANPPV  
NIDADQLLGIGQNWNSTISQALMQNEAEQVRAICLRAWEKIQDPGTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIADEKARKVIVELMAYENAN  
PECQSAIKPLKGKVPAGSDIVEYVKACDGIGGAMYKAMLMQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPVNQNIITQATTGREPPDLC  
PRCKKGKHWAQCRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPQGFQGQQPLSQVFQGISQLPQYNNCPPPQAAVQQ

**SEQ ID 8**

MPPAPQGRAPYHQPPTRRLNPMAAPPSSRQGSELHEIIDKSKEGDTEAWQFPVTLEPMPPGEGAQEPEPTVEARYKSFSIKMLKDMKEGVKQYGPNS  
PYMRTLLDSIAHGHLIIPYDWEILAKSSLSPSQFLQFKTWIDGVQEVRNRANPPVNIADADQLLGIGQNWNSTISQALMQNEAEQVRAICLRA  
WEKIQDPGTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIADEKAGKVIVELMAYENANPECQSAIKPLKGKVPAGSDIVEYVKACDGIGGAMYK  
MLM QAITGVVLGGQVRTFGKGKCYNCQIGHLKKNCVPVNQNIITQATTGREPPDLC PRCKKGKHWAQCRSKFDKNGQPLSGNEQRGQPQAPQO  
TGAFPIQPFVPQGFQGQQPLSQVFQGISQLPQYNNCPSPQAAVQQ

**SEQ ID 9**

MGQTTSKIKSKYASYLSFIKILLKRGGVVKVSTKNLIKLFQIIEQFCPWFPQGTLDLKDWKRIGKELKQAGRGNIIPLTVNDWAIKAALEPFQT  
EEDSVSVDAPGSCVIDCNEKTGRKSQKETEGLHCEYVAEPVMAQSTQNVDYNQLQEVIYPETLKLEGKPELVGPSESKPRGTSPLPAGQPVTLQ  
PQKQVKENKTQPPVAYQWPPAELQYRPPESQYGPMPAPQGRAPYQPPTRLNPTAPPSRQGSKLHEIIDKSKEGDTEAWQFPVTLEPMPP  
GEGAQEPEPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLLDSIAHGHLIIPYDWEIQAKSSLSPSQFLQFKTWIDGVQEVRNRANPPV  
NIDADQLLGIGQNWNSTISQALMQNEAEQVRAICLRAWEKIQDPGTCPSFNTVRQGSKEPYPDFVARLQDVAQKSIADEKARKVIVELMAYENAN  
PECQSAIKPLKGKVPAGSDIVEYVKACDGIGGAMYKAMLMQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPVNQNIITQATTGREPPDLC  
PRCKKGKHWAQCRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPQGFQGQQPLSQVFQGISQLPQYNNCPPPQAAVQQ

SEQ ID 10

ATGGGCAACCATTTGTGGGAAACGAGCAAAGGGGCCAGGCCAGGGCCCACAACAAACTGGGCATTCCAAATTAGCCATTGTCCTCAGGGTTT  
TCAGGGACAACAAACCCCCACTGTCCAAGTGTTCAAGGAATAAGCCAGTTACACAAATACAACAAATTGCCCCCGCACAGGGCAGTCAGCAG  
TAGATTTATGTACTATACAAGCAGTCCTCTGCTTCAGGGGAGCCCCACAAAAAACCCCCACAGGGTATATGGACCCCTGCTAAGGGACTGTT  
AGGACTAATCTGGGAGCATCAAGTCTAAATCTAAAAGGAGTTCAATTCTACAGTGTGGTGATTAGCAGACTATAAAGGCGAATTCAATTGGTT  
ATTAGCTCTCAATTCTGGAGTCCAGTCCAAGAGACAGGATTGCTCAATTATTACTCTGCCATACATTAAGGGTGGAAATAGTGAATAAAAG  
GAATAGGAGGGCTTGGAAAGCACTGTCCAACAGGAAGGCTCATATTGGCAAGTCAGGTCTAGAGAACAGACCTGTGTAAAGGCCATTATCA  
AGGAAAACAGTTGAAGGGTGGTAGACACTGGAGCAGATGTCCTATCATTGCTTAAATCAGTGGCAAAAAATTGGCTAAACAAAAGGCTGTT  
ACAGGACTTGTGGCATAGGCACAGCTCAGAAGTGTATCAAAGTACGGAGATTTCATTGCTTAGGGCAGATAATCAAGAAAGTACTGTCAGC  
CAATGATTACTCAATTCTCTTAATCTGTGGGGTCAGGATTTTACAAACAATGGGTCGGAAATCACCAGGCCGTCATCATATAGCCCCAC  
GAGTCAAAAATCATGACCAAGATGGGATATATACCAAGGAAAGGGACTAGGGAAAAATGAAGATGGCATTAAATTCCAGTTGAGGCTAAAATAAAT  
CAAGAAAGAGAAGGAATAGGAATCCTTGC

SEQ ID 11

ATGGGCAACCATTGTGGGAAACAGGAAGAGGGGCCAGCCTCAGGCCCCCAACAAACTGGGCATTCCCAGTTCAACTGTTGTCCTCAGGGTTT  
TCAAGGACAACAACCCCTACAGAAAATACCACCACTCAGGGACTCAGCCAATTACAACAATCCAAGCTGTCCCGGCCACAGCAGGAGGCCA  
CACTAGATTATGTTCACCCAAATGGCTCTTACTCCCTGGAGAGCCCCACAAAGATTCTAGAGGGGTATATGGCCGCTGCCAGAAGGGAG  
GGTAGGGCTTATTTAGGGAGATCAAGTCTAAATTGAAGGGACTCAAATTCAACTGGGTAATTATTCAAGATTATAAAGGGGAATTCACTTA  
GTGATCAGCTCCACTGTTCCCTGGAGTCCAATCCAGGTGATAGAATTGCTCAATTACTGCTTTGCCATTGTTAAAATTGGGAAACAAAGG  
AAAGAACAGGAGGGTTGGAAAGTACCAACCCCTGCAGGAAAGCCACTATTGGGCTAATCAGGTCTCAGAGGATAGACCCGCTGTACAGTCACTAT  
TCAGGGAAAGAGTTGAAGGATTAGTGATACCCAGGCTGATGTTCTATCATCGGCATAGGCACCGCCTCAGAAGTGTATCAAAGTGCCTGATT  
TACATTGCTAGGATCTGATAATCAAGAAAGTACGGTTCAGCCTATGATCACTTCTATTCAATCAATTATGGGCGAGACTGTTACACATG  
GCATGCAGAGATTACTATCCCAGCCTCCATACAGCCCCAGGAATCAAAAAATCATGACTAAAATGGGATAGCTCCCTAAAAGGGACTAGGAAAG  
AATGAAGATGGCATTAAAGTCCCAACTGAGGCTGAAAAAAATCAAAAAAGAAAAGGAATAGGGCATCCTTTAGAAGCAGGTCACTGTAGAGCCTC  
CAAAACCCATTCCATTAAATTGGGGGGAAAAAA

SEQ ID 12

ATGGAGATTTCACATTGCTTAGGCCAGATAATCAAGAAAGTACTGTCAGCCAATGATTACTCAATTCCCTTAATCTGTGGGGTCGAGATTTAT  
TACAACATGGGTGCGGAAATCACCATGCCGCTTCCATTATAGCCCCCACGAGTCAAAAAATCATGACCAAGATGGGATATATACCAGGAAAGGG  
ACTAGGGAAAAATGAAGATGGCATTAAAGTCCAGTGAGGCTAAAATAATCAAGAAGAGAAGGAATAGGGTATCCTTTAG

SEQ ID 13

MEILHCLGPNDNQESTVQPMITSIPLNLWGRDLILQOWGAEITMPAPLIPSPTSKQIMTKMGYIPGKGLGKNDEGIKVPVEAKINQEREGIGYPFT

SEQ ID 14

WATIVGKRAKGPGASPPTNWGIPNSAICSSGFSGTTPTVPSVSGNKPVTTIQQLSPATGSAAVDLCTIQAVSLLPGEPPQKPTPTGVYGPLPKGTV  
GLILGRSSLNLKGVQIHTSVVSDSYDKEIQLVISSSI PWSASPRDRIAQLLLLPYIKGGNSEIKRIGGLGSTDPTGKAAYWASQVSENRPVCKAI IQ  
GKQFEGLVDTGADVSIIALNQWPKNWPQKAVTGLVGITASEVYQSTEILHCLGPDNQESTVQPMITSIPLNLWGRDILLQWGAETMPAPSYSPT  
SQKIMTKMGIYIPGKGLGKNEGDIGIKIPVEAKINQEREGIGNPC

SEQ ID 15

ATGCCATTAAAATTCCAGTTGAGGCTAAATAAATCAAGAAAGAGAAAGGAATAGGGAACTCTTGTAGGGCGGCCACTGTAGGCCCTCAAACCC  
ATACCATTAACTTGGAAAACAGAAAAACAGTGTGGTAAATCAGTGGCCGTACCAAAACAAAACAGCTGGAGGCTTACATTATTAGCAATGAAC  
AGTTAGAAAAGGGTCATATTGAGCCTCTGTCACCTTGGAAATTCTCTGTGTTGTAATTAGAAGAAATCAGGCAAATGGCTATGTTAAGTGA  
CTTAAGGGCTGTAACCGCTAATTCAACCCATGGGCCTCTCCAACCCGGGTTGCCCTCTCCGGCATGATCCCAGAAGATTGGCCTTAATTATA  
ATTGATCTAAAGGATTGCTTTTACCATCCCTGGCAGAGCAGGATTGCGAAAAAATTGCTTACTATACCAGGCCATAAATAAAGAACCCAG  
CCACCAAGGTTTCAGTGGAAAAGTGTACCTCAGGGAAATGCTTAAGTCCAACATTGTCAGACTTTGTAGGTCGAGCTCTCAACCCAGTTAGAGA  
AAAGTTTCAGACTGTATTATTCAATTGATATTGATATTGTGCTGAGAAAGAAAGATAAATTAAATTGACTGTATACATTCTGCAA  
GCAGAGGTTGCCAATGCTGGACTGGCAATAGCATCTGATAAGATCCTACTCTTTCTATTAGGGATGAGATAGAAAAATAGAAAAA  
TTAAGGCCACAAAAAATAGAAATAAGAAAAGACACATTAAAACACTAAATGATTTCAAAATTAAGGAGATATTAAATTGGATTGGCCAACCTCT  
AGGCATTCTACTTATGCCATGTCAAATTGTTCTATCTTAAGAGGAGACTCAGACTAAATAGTAAAGAAATGTTAACCCCCAGAGGCCAAACAAA  
GAAATTAAATTAGTGGAGAAAAAATTCACTGAGCCAAATAAATAGAATAGATCCCTAGCCCCACTCCAACTTTGATTTGCCACTGCAACATT  
CTCCAACAGGCATCATTATTCAAAATACTGATCTTGTGGAGTGGTCACTCCCTCCTCACAGTACAGTTAAAGACTTTACATGTTACTTGGATCAAATT  
AGCTACATTAACTGGTCAGACAAGATTACGAATAATAAAATTATGTTGGAAATGCCAGACAAAATAGTGTCCCTTAACCAAGGAACAAGTGTAGA  
CAAGCCTTATCAATTCTGGTCATGGAGATTGGTCTGCTAATTGTGGAAATTATTGATAATCATTACCAAAACAAAGATCTCAGTTCT  
TAAAATTGACTACTTGGATTCTACCTAAATTACAGACGTGAACCTTAGAAAATGCTCTAACAGTTACTGATGGTCCAGCAATGAAAAGC  
AGCTTACACAGGACCGAAAGAACGAGTAATCAAAACCTCATATCAATGGCTCAAAGAGCAGAGTTGGTGTGAGTCATTACAGTGTAAAGATT  
GACCAACCTATCAATTATATCAGATTGCTATGTTGAGACAGCTAATTAAATATAGCATGGATGATCAGT  
TAAACCAGCTATTCAATTATTACAAACAAACTGTAAGAAAAGAAATTCCCTATTATACACATATTGAGCACACACTAATTACAGGCC  
TTGACTAAAGCAAATGAACAAGCTGACTTACTGGTATCATCTGCACTCATAAAAGCACAAGAACATTGATGTTGAGTCATTACAGTGTAAAGCAGGAG  
TTAAAAAAACAAATTGATGTCACATGGAAACAGGCAAAGATAATTGACACATTGCACTTACACCTGGCCACTCAAGAGGAG  
GAGTTAATCCCAGGGCTGTGCTTAATGCAATTGGCAAATGGATGTCAGCATGTCACCTTCAATTGGAAAGATTATGTTACGTAACAGT

TGATACTTATTACATGGCAACTGCCAACAGCAGAAAGTACTCCATGTTAAAACATTATTGTCTTGCTGTAATGGGA  
 GTTCCAGAAAAAATCAAACGACAATGGACCAGGATATTGAGTAAAGCTTCCAAAATTCTTAAGTCAGTGGAAATTTCACATACAACAGGAA  
 TTCCCTATAATTCCAAGGACAGGCCATAGTGAAGAAGACTAATAGAACACTCAAACACTAAATTAGTAAACAAAAGAAGGGGGAGACAGTAAGGA  
 GTGTACCACTCCAGATGCAACTTAATCTAGCACTCTATACTTTAAACATTATAGAAATCAGACTACTACTCTGAGAACACAT  
 CTTACTGTAAAAGAACAGCCCAGAGGAAACTAATTGGTGAAGAGATAATAAGACATGGGAAATAGGGAGGTGATAACGTGG  
 GGAGAGGTTTGCTGTGTTACAGGAGAAAATCAGCTTCTGTTGGATACCCACTAGACATTGAGTTCTACAATGAACCCATCAGAGATGC  
 AAAGAAAAGCACCTCCGGAGACGGAGACATCGAACATCGAGCACCGTAGCTCACAAGATGAACAAAATGGTAGCAGTCAGAAGAACAGATGAAGTT  
 GCCATCACCAGAAGCAGAGGCCAACATTGGGACAATAAGAAGCTGACGCAGTAGCTACAAAATATCTAGAGAACACAAAGGTGACACAA  
 ACCCCAGAGAGTATGCTGCTTCAGCCTGATGATTGATCAATGGTGTAAAGTCTCCATGCCTGAGGAGCAGTCAGCAG

**SEQ ID 16**

ATGTTAACTGACTTAAGGCTGTAACGCCGTAACTCAACCCATGGGCCTCTCAACCCGGTTGCCCTCCGGCCATGATCCAAAAGATTGGC  
 CTTAATTATAATTGATCTAAGGATTGTTTACCATCCCTCTGGAGAGCAGGATTGCGAAAATTGCTTTACTATACAGCCATAAATAA  
 TAAAGAACAGCACCAGGTTCAAGTGGAAAGTGTACCTCAGGAATGCTTAATAGTCAAACATTGCTCAGACTTTGTAGGTCAGCTCTCAA  
 CCAGTTAGAGAAAAGTTTCAGACTGTTATTATTCTATTGATATTGCTGAGAAACAGATAAAATTGACTGTTATA  
 CATTCCTGCAAGCAGAGGTTGCAATGCTGACTGGCAATAGCATCTGATAAGATCAAACCTCTACTCCTTTCTATTATTAGGGATGCAGATAGA  
 AAATAGAAAATAAGCACAAGAAATAAGAAAAGACATTAACACTAAATGATTCTAAAATTACTAGGAGATAATTGATTGATT  
 CGGCCAACTCTAGGCATTCTACTTATGCCATGTCATTGTTCTATCTTAAGAGGAGACTCAGACTTAAAGAATGTTAACCCAG  
 AGGAACAAAAGAAATTAAATTAGTGAAGAAAATTCACTGAGCAGCAAATAATAGAATAGATCCCTAGGCCCACTCCAACTTTGATTTG  
 CACTGCACATTCTCCAAGGCATCATTATCAAATACTGATCTGGAGTGGTCAATTCTCCTCACAGTACAGTTAACAGACTTACATTGTC  
 TTGGATCAAATAGCTACATTATCGGTAGACAAGATTACGAATAATAAAATTATGGGAATGACCCAGACAAAATAGTTGCTCTTAACCAAGG  
 AACAAAGTTAGACAAGCCTTATCAATTCTGGCATGGAAGATTGGTCTGCTAATTGTTGGAATTATGATAATCATTACCCAAAACAAGAT  
 CTTCCAGTTCTAAATTGACTACTTGGATCTACCTAAATTACAGACGTCAGCTTAAAGTCTAACAGTATTACTGATGGTTCAGC  
 AATGGAAAAGCAGCTTACAGGACCAGAAGCAGATAATCAAACCTCCATCAATCGGCTAACAGGACAGAGTTGGTGCAGTCATTACAGTGT  
 TACAAGATTGACCAACCTATCAATATTATCAGATTCTGCTATGAGTACAGGCTAACAGGATGTTGAGACAGCTTAATTAAATAGCAT  
 GGATGATCAGTAAACAGCTTCAATTACAACAAACTGTAAGAAAAGAATTCCCATTTATACACATATTGAGCACACACTAAT  
 TTACCAAGGGCTTGAATGAAAGCAAGCTGACTTACTGGTATCATCTGACTCATAAAGCACAAGAACCTCATGCTTGACTIONCATGTA  
 ATGCAGCAGGATAAAAACAAATTGATGTCACATGGAACAGGAAAGATATTGACAACATTGCAACCCAGTGTCAAGTCTACACCTGCCAC  
 TCAAGAGGCAGGAGTTAACAGGAGGCTGTGCTCTAATGCAATTGCAATGGATGTCAGCATGTACCTCATTCGAAGATTATCATATGTT  
 CACGTAACAGTTGATACCTATTCATATGGCAACTTGCCAAACAGGAGAAAGTACTCCATGTTAAAAACATTATTGCTTGTGTTG  
 CTGTAATGGAGTTCCAGAAAATCAAACAGCAATGGACCAGGATATTGAGTAAAGCTTCCAAAATTCTAAGTCAGTGGAAAATTTCACA  
 TACAACAGGAATTCTTATAATTCCAAGGACAGGCCATAGTGAAGAAGACTAATAGAACACTCAAACACTAAATTAGTAAACAAAAGAAGGGGG  
 GACAGTAAGGAGTGTACCTCTCAGATGCAACTTAATCTGACTCTACTTTAAACATTATAGAAATCAGACTACTACTCTG  
 CAGAACACATTTACTGGTAAAAGAACAGCCCACATGAGGAAAACATAATTGGGAAAGATAGTAAAATAAGACATGGGAAATGGAGGT  
 GATAACGTGGGGAGAGGTTGCTGTGTTACCAGGAGAAAATCAGCTTCTGTTGGATACCCACTAGACATTGAGTTCTACATGAACCC  
 ATCAGAGATGCAAAGAAAAGCACCTCCGGAGACGGAGACATCGAACATCGAGCACCGTAGCTCACAAGATGAACAAAATGGTAGCAGAAGAA  
 CAGATGAAGTTGCCATCCACCAAGAAGGCCAGGCCAACATTGGGACAACAAAGAGCTGACCCAGTAGCTACAAAATATCTAGAGAACACAA  
 AGGTGACACAAACCCAGAGAGTATGCTGCTGCAGCCTGATGATTGATCAATGGTGTAAAGTCTCCATGCCTGAGGAGCAGCTGAGCTA

**SEQ ID 17**

ATGGCATTAAGCTCAAAGGCTGAAAAAAATCAAAGAAAAGGAATAGGGCATCCTTTAGAAGCGGTCACTGTAGAGCCTCCAAAACC  
 CATTCTATTAATTGGGGGAAAAAAACTGATGGTAAATCAGTAGCCGCTTCCAAAACAAAACCTGGAGGCTTACACTTATTAGCAAAGAAA  
 CAGTTAGAAAAGGACATATTGAGCTTCATTTCGCTGGAAATTCTCTGTTGTAATTGAGAAAATCCGGCAGATGGCTATGCTAACTGAC  
 TTAAGAGCCATTATGCCATAATTCAACCCATGGGGCTCTCCATCCGGTTGCCCTCTCCAGCCATGGCCCCCTTAATTATAATTGATCTGAAG  
 GATTGCTTTTACCATCTGCAAAAGGGATTGAAAATTGCTTTACTATACCAGCTTAAATAAGAACCCAGGCCACAGGTTCA  
 GTGGAAAGTATTGCTCAGGGATGCTTAATAATTCAACTATTGTCAGACTTCATAGCTCAAGCTCTGCAACCAGTTAGAGACAAGTTTCAGAC  
 TGTTATATCGTCATTATGTTGATTTGCTGCTGAGAACAGAGAACATTGACCTTACACATTCTCAGACAGAGGTTGCCAACGC  
 GGGACTGACAATAGCATCTGATAAGATTCAAACCTCTCTTCTTCAATTACTTGGGATGCAAGGAGAGGAAAATTAAACCAAAAAAATA  
 GAAATAAGAAAAGACATATTAAAGGTTCAAAAGTGGTAGGAGACTAATTGAGTTGGAGATATTGAGTTGGCAACT  
 CTAGGCATTCTACTTATGCACTCAATTGTTCTCTTCTTAAGAGGGACTTGGAAATTAAAGTGAAGAATGTTACCTCCAGAGGCAACTA  
 AAGAAATTAAATTGAAGAAAATTGGTCAAGCACAAGTAAATAGGATCACTGGCCCCACTCAAATTGATTTGGTACTGCACATT  
 TCTAACAGCCATCATGTTCAAACACAGATCTGTTGGATGGCTTCTCTCATAGTACAATTAGACTTTACATTGATCTGGATCAAATG  
 GCTACATTATGGTCAAGGAAATTACGAATAATAACATTGTTGGAAATGACCCAGATAAAACTCTGTTCTTCAACAGAACACAAGTTAGAC  
 AAGCCTTATCAGTCTGGTGCAGGCAGATTGCTCTGCTATTGCAATTCTGGAATTATTGATAATTACCTACAAACAAAATCTCCAGTCTT  
 AAAATTGACTACTTGGATTCTACCTAAATTACAGACGCTGAACTCAAACCTCCGCTACATCAGCTAACAGGACAGAGTTGGTGCAGTCATTACAGTCTTACAAGATTG  
 GCTTACACAGGGCCGAAAGAACAGAGTAATCAAACCTCCGCTACATCAGCTAACAGGACAGAGTTGGTGCAGTCATTACAGTCTTACAAGATTG  
 ACCAACCTATCAATTATATCAGATTCTGCTATGAGTACAGGCTAACAGGATGTTGAGACAGCTTAATTAAATAGCACGGACGATCATT  
 AAACCCACTATCAATTATACAAACAACTGTAAGAAAAGAATTCCCATTTTATTACTCATATTGAGAACACACTAAATTACCGGGCCT  
 TTGACTAAAGCAAATGAACAAGCTGACTTACTGGTATCATGCAATTCAAAAGCACAGAACACTTCTGCTTGACTIONCATGTAATGCAGCAGGAT

TAAAAAAACAAAATTGATGTCACATGGAACAGGCAAAGATATTGTACACATTGCCACCGTCACTTACACCTGTCCACTCAAGAGGCAGG  
AGTTAATCCCAGAGGTCTGTCCTAATGCGTTAGGCACATGGATGGCACGCTGTTCTCATTTGGAAGATTATCATATGTCATGTAACAGTT  
GATACTTATTCACTTCAATGGGCAACTTGCCAAACAGGAGAAAGTACTTCCATGTAAAAACATTATTATCTGTTTCTGTAATGGGAG  
TTCCAGAAAAAAATCAAACAGCACAATGGCAGGATATTGTAGTAAGCTTCCAAAATTCTAAGTCAGTGGAAAATTCAACATACAACAGGAAT  
TCCTTATAATTCCAAGGACAGGCCATAGTTGAAAGAACTAATAGAACACTCAAACACTCAATTAGTTAACAAAAGAAGGGGGAGACAGTAAGGAG  
TGTACCACCTCAGATGCAACTTAATCTAGCACTCTACTTTAACATTATAGAAATCAGACTACTACTCTCCAAAACACATC  
TTACTGGTAAAAGCACGCCACATGAAGGAAACTAATTGGTGGAAAGATAATAAAAATAGACATGGGAAATGGGAAGGTGATAACGTGGGG  
GAGAGGTTTGCTGTTACCAGGAGAAATCAGCTTCTGTTGGATACCCACTAGACATTGAAAGTCTACAAATGAACCCATCGGAGATGCA  
AAGAAAAGGGCTCCACAGAGATGGTAACCCCCAGTCACATGGATGGATAATC

SEQ ID 18

ATGGGGCCTCTCCAACCCGGGTGCCCTCTCGGCATGATCCCCAAAGATTGCCCTTAATTATAATTGATCTAAAGGATTGCTTTTACCATCC  
CTCTGGCAGAGCAGGATTGTAAAAAATTGCCCTTAACTATACCAGCCATAAAATAAAAGAACCAAGGCCACAGGTTCAGTGGAAAGTGTACCTCA  
GGGAATGCTTAATAGTCACAATTGTCAGACTTTGCTAGGTGAGGCTCTCAACCCAGTGAGGAGAAAAGTTTCAGACTGTTATTATTACATTAT  
ATTGATGATATTGTCAGAAACGAAAGATAAATTAAATTGACTGTTACATTCTGCAAGCAGAGGTTGCCATGCTGGACTGGCAATAG  
CATCCGATAAGATCCAACCTCTACTCCCTTCAATTAGGATGCGAGATAGAAAATAGAAAATTAGCCACAAAAAATAGAAATAAGAAAAGA  
CACATTAAAACACTAAATGATTTCAAAATTACTAGGAGATATTAGGATTCGGCAACTCTAGGCATTCTACTTATGCCATGCTAAATTG  
TTCTCTATCTTAAGAGGAGACTCAGACTAAATAGTCAGAAATAATTACCCAGGGCAACAAAAGAAATTAAATTAGTGGAAAGAAAAATTCACTG  
CAGCGAAATAAATAGAATAGATCCCTAGCCCCACTCCAACCTTGTATTGCACTGCACATTCTCCACAGGCATCATTATTCAAATACTGA  
TCTTGTGGAGTGCTCATTCTCTCACAGTACAGTTAACAGACTTTACATTGACTTGGATCAAATAGCTACATTAACTCGTCAGACAAGATTACGA  
ATAACAAAATTATGTGGAAATGACCCAGACAAAATAGTGTCCCCTTAACCAAGGAACAAGTAGACAAGCCTTATCAATTCTGGTGCATGGCAGA  
TTGGTCTTGCTAATTGTCAGACTTATTGATAATTACCTACCCAAAACAAAGATCTTCAGTTCTAAATTGACTACTTGGATTCTACCTAAAT  
TACAGACGTGAACCTTGTAGAAAATGCTAACAGTATTACTGATGGTCCAGCAATGGAAAGCAGCTTACACAGGGCGAAAGAACGAGTAATC  
AAAACCTCATATCAATCGGCTAAAGAGACGAGTGGTGCAGTCATTACAGTGTACAGGATTTGACCAACCTATCAATTATATCAGATTCTG  
CATATGTAGTACAGGCTACAAGGGATGTTGAGACAGCTCTAAATTAAATAGCATGGATGATCAGTTAAACAGCTATTCAATTATTACAACAAAC  
TGTAAGAAAAGAAAATTCCCATTATATTACTTATTCAGACACACTAATTACAGGGCTTGTACTAAAGCAATGAACAAGCTGACTTA  
CTGGTATCATCTGCACTCATAAAGCACAAGAACATTGCTTTGACTCATGTAATAGCAGCAGGATTTAAACAAATTGATGTCACATGGAAC  
AGGCAAAAGATATTGTCACACATTGCAACCCAGTGTCAAGTCTACACCTGCCACTCAAGAGGCAGGAGTTATCCAGAGGTCTGTGCTCTAATGC  
ATTATGGCAAATGGATGTCACGCATGTCACCTTATTGGAGATTATCATATTGTCATGTAACAGTTGATACATTACATTTCATATGGCAACT  
TGCCAAACAGGAGAAAAGTACTTCCATTGTTAAAACATTATTGTCAGTTGCTGTAATGGAGTTCCAGAAAATTCAAACACTGACAATGGAC  
CAGGATATTGACTAAAGCTTCCAAAATTCTAACAGTGTGAAATTTCACATACAACAGGAATTCTTATTAATTCCAAAGGACAGGCCATAGT  
TGAAAGAACTAATAGAACACTCAAACACTCAATTAGTTAAACAAAAGAAGGGGAGACAGTAAGGAGTGTACACTCTCAGATGCAACTTAATCTA  
GCACTCTATACTTAAATTTTAAACATTATAGAAATCAGACTACTCTTCGAGAACACATCTACTGGTAAAAGAACAGCCACATGAAG  
GAAAACATTTGGTGGAAAGATAAATAGACATGGAAATTAGGAAGGTGATAACGTGGGGAGGGTTTGTGTTGCTGTTCACAGGAGA  
AAATCAGCTTCTGTTGGTACCTACTAGACATTGAGTCTACAAAGCCCAGTGGAGATGCAAAGAAAAGGGCTCCACGGAGATGGTAACA  
CCAGTCACATGGATGGATAATCTATAGAAGTATGTTAATGATAGTATAGTGGTACCTGGGCCCATAGATGATGCTGCTGCTGCCAAACCTGAGG  
AAGAAGGGATGATGATAAATATTCTCATTGGGTATGTTACCTCTATTGCTAGGGAGAGCACCAGGTGTTAATGCTGAGTCCAAAATTG  
GTTGGTAGAAGTACCTACTGTCAGTCCCACAGTAACTTACATGTAAGCGGGATGTCACTCAGGCCACGGTAAATTATTACAAGAC  
TTTCTTATCAAAGATCATTAAATTAGACCTAAAGGAAACCTTGGCCAAGGAAATTCCAAAGAATCAAAAATACAGAAGTTTGTGTTGG  
AAGAATGTTGGCAATAGTGGCGTGATATTATAAAACATGAAATTGGAACTATTAGTGGTACCTGGGCCCATAGATGATGCTGCTGCTGCCAAACCTG  
AGGACAAACTCAGTCGTGCTCAAGTGCACAAGTGTGAGTCCAGCTGTGATAGCCACTTAACAGAAAGTTAGACAAACATAAGCATAAAAATTG  
CTTTCTACCCATTGGGAAATGGGAGAAAAGGAATCTCATACCCAAAGACCAAAATAGTAAGCTCTGTTCTGGTCTGAAACATCCAGAAATTG  
GGCTTACTGTGGCCTCACACCACATTAGAATTGGCTCTGGAAATCAAAACTTGTAAAGGAACTTGTGAAAGGATTGTAAGCCTTATTACTGTCACCTAAATT  
CAGTCTAACAGTCTTACAAAGTTCGTAAGGCCCTTATGCTAGTTGCTAGGAAATAGTTATTAAACAGACTCCACAGTATAACCTG  
GAAAATTGAGATTGCTACTTGCATTGATTCAACTTTAATTGCAACACCCGTTCTGCTGAGGAGAGCAGAGGGCTGTGGATCCCTG  
CCATGGACCGACCGTGGGAGGCCATACCCATTGACTGAAAGTATTAAAGGTGTTAAATTAGATCCAAAGAAGATTCAATTAAAGAACAAATTTC  
AATTGCACTGATTATGGGTTATTGCACTGACAGCTACGGCTGCTGTAGCAGGAGTTGCAATTGCACTCTCTGTTCACTGAGTAAACCTTGT  
GATTGGCAAAAGAATTCTACAAGATTGGAATTACAATCTAGTATTGATCAAAATTGGCAAAATCAAATTGATCTTAGACAAACTGTCATT  
GGATGGGAGACAGACTCATGAGCTTGAAGAACATGTTCCAGTTACAATGTGACTGGAATACGTCAGATTGTTATTACACCCAAATTATAATG  
GTCTGAGCATCAGGGACATGGTTAGACGCCATACAGGGAAAGAGATAATCTCACTTTGACATTCCAAATTAAAGAACAAATTTC  
GCATCAAAAGCCCATTAAATTGGCAGGAACAGGCAATTGCAAGGAGTTGCTGATGCCCTGCAAATCTAACCTGTCAGTGGGTTAAGA  
CCATTGGAAAGTACATGCAATTAAATCTCATATTAACTCTTGTGCTGCTGTTGTTAGTCTGCAAGGTGACCCAAACAGCTCGAAGAGA  
CAGCGACCATCGAGAACGGCCATGATGACGATGGCGTTTGTGCAAAAGAAAAGGGGAAATGTGGGAAAGCAAGAGAGATCAAATTGTTACT  
GTGTCGTGTTAG

SEQ ID 19

MLTDLRAVNAVIQPMGPLQPGPLSPAMIPKDWPILIIDLKDCFFTIPLAEQDCEKFRAFTIPAINNKEPATRFQWKVLPGQMLNSPTICQTFFGRALQP  
PVREKFSDCYIIHCDILCAAETKDLIDCYFLQAEVANAGLAIASDKIQTSTPFHYLGMOIENRKIKPQKIEIRKDTLTLNDFQKLLGDIWIR  
RPTLGIPTYAMSNLFSIIRGDSDLNSKRMLTPEATKEIKLVEEKIOSAQINRIDPLAPLQLLI FATAHSPTGIIQNTDLVEWSFLPHSTVKTFTLY

6/25

LDQIATLIGQTRLRIIKLCGNDPKIVVPLTKEQVRQAFINSGAWKIGLANFVGIIIDNHYPKTKIFQFLKLTWILPKITRREPLENALTVFTDGSS  
NGKAAYTGPKERVIKTPYQSAQRAELVAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDQLNQLFNLLQQTWRKRNFPFYITHIRAHNT  
LPGPLTKANEQADLLVSSALIKAQELHALTHVNAGLKNFKDVTWKQAKDIVQHCTQCQVLHLPTEAGVNPRGLCPNALWQMDVTHVPSFGRLSYV  
HVTVDTYSHFIWATCQTGESTSHVKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTGIPYNSQQAIVERTNRTLTKLVQKEGG  
DSKECTTPQMLNLALYTLNFLNIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRLKFYNEP  
IRDAKKSTSAETETSQSSTVDSQDEQNGDVRRTDEVAIHQEGRANLGTTEADAVSYKISREHKDTNPREYAACSLDDCINGGKSPYACRSSCS

**SEQ ID 20**

MGPLQPGPLSPAMIPKDWPILLIDLKDCFFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIHY  
IDDLILCAAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPKIEIRKDTLKLTDNFQKLLGDIWINIRPTLGPIPTYAMSNL  
FSILRGDSDLNSQRILTPPEATKEIKLVEEKIQSAQINRIDPLAPLQLLIFATAHSPTGIIQNTDLVEWSFLPHSTVKTFTLYLDQIATLIGQTRLR  
ITKLCGNDPKIVVPLTKEQVRQAFINSGAWQIGLANFVGLIDNHYPKTKIFQFLKLTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVI  
KTPYQSAQRDELVAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDQLNQLFNLLQQTWRKRNFPFYITHIRAHNTLPGPLTKANEQADL  
LVSSALIKAQELHALTHVNAGLKNFKDVTWKQAKDIVQHCTQCQVLHLPTEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDYSHFIWAT  
CQTGESTSHVKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTGIPYNSQQAIVERTNRTLTKLVQKEGGDSKECTTPQMLNL  
ALYTLNFLNIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWLPTRLKFYNEPIGDAKKRASEMVT  
PWTMDNPIEVVNVDSIWVPGPIDDRCPAKPEEEGMMINISIGYRPPICLGRAPGCLMPAVQNWLVEPTVSPISRFTYHMVSGMSLRPRVNYLQD  
FSYQRSLKFRPKGKPCPKIEPKESKNTTEVILWEECVANSIAVILXNNNEFGTIIDWAPRGQFYHCNCGQTQSCPSAQSPAVSDLITESLDKHHKKLQ  
SFYFWEGKGISTPRPKIVSPVSGPEHPELWRLTVASHHIRIWSGNQTLERDCKPFYTVDLNSSLTVPLQSCVKPPYMLVVGNIIVKPDQSQTITC  
ENCRLTCIDSTFNWQHRILLVRAREGVJIPVSMDRPWEASPSVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAAVAGVALHSSVQSVNFVN  
DWQKNSTRLWNQSISDQKLANQINDLQTVIWMGDRIMSLERHFQLCDWNTSDFCITPQIYNESEHHWDVMRRHQGREDNLTDISKLKEQIFE  
ASKAHLNLVPGTEAIAVGADCLANLPVTWVKTIGSTSIIINLILILVCLFCLLLVCRCTQQLRRDSHRERAMMTMAVLSKRKGNGVGKSKRDQIVT  
VSV

**SEQ ID 21**

NKSRKRRNRESLLGAATVEPPKIPLTWKEPKVWVNQWPLPKQKLEALHLLANEQLEKGHIEPSFPWNNSPVFVIQKSGKWRMLTDLRNAVNIQ  
PMGPLQPGPLSPAMIPKDWPILLIDLKDCFFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYIIH  
CIDDILCAAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPKIEIRKDTLKLTDNFQKLLGDIWINIRPTLGPIPTYAMSN  
LFSILRGDSDLNSKRMLTPPEATKEIKLVEEKIQSAQINRIDPLAPLQLLIFATAHSPTGIIQNTDLVEWSFLPHSTVKTFTLYLDQIATLIGQTRLR  
RIIKLCGNDPKIVVPLTKEQVRQAFINSGAWKIGLANFVGIIIDNHYPKTKIFQFLKLTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVI  
LLVSSALIKAQELHALTHVNAGLKNFKDVTWKQAKDIVQHCTQCQVLHLPTEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDYSHFIWAT  
TCQTGESTSHVKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTGIPYNSQQAIVERTNRTLTKLVQKEGGDSKECTTPQMLNL  
LALYTLNFLNIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRLKFYNEPIRDACKSTSAETE  
TSQSSTVDSQDEQNGDVRRTDEVAIHQEGRANLGTTEADAVSYKISREHKDTNPREYAACSLDDCINGGKSPYACRSSCS

**SEQ ID 22**

ATGAACCCATCAGAGATGCAAAGAAAAGCACCTCCGGAGACGGAGACATCGCAATCGAGCACCTTGACTCACAGATGAACAAATGGTACGT  
CAGAAGAACAGATGAAGATTGCCATCCACCAAGAACAGGCAGAGCCCAACTGGGCACAACATAAGAACGCTGACCGAGTTAGCTACAAAATATCTAGA  
GAACACAAAGGTGACACAAACCCAGAGAGTATGCTGCTTGAGCCTTGATGATTGATCAATGGTGGTAAGTCTCCCTATGCTGAGGAGCAGCT  
GCAGCTAACTATACCTACTGGCCTATGCTCTTCCCCTTAATCGGCAGTCACATGGATGGATAATCCTACAGAAAGTATATGTTAATGATA  
GTGTATGGTACCTGGCCCATAGATGATCGCTGCCCTGCAAACCTGAGGAAGAAGGGATGATGATAAATTTCATTGGTATCATTACCTCC  
TATTTGCCCTAGGGAGACCCAGGATGTTAATGCTGAGTCACCTGGGAAATTGCTGAGTACCTACTGTCAGTCCCCTGTTAGATTCACTT  
CACATGGTAAGCGGGATGTCACTCAGGCCACGGTAATTTCAGGATCTTACAAAGATCATTAAAGTACCTAAAGCTAAAGGAAACCTT  
GCCCCAAGGAATTCCAAAGAATCAAAATACAGAAGTTTAGTTGGAGAATGTCGGCAATAGTGCAGTGTATATTACAAAACAATGAATT  
CGGAACATTAGATTGGCACCTCGAGGTAACTTACCCACATTGCTCAGGACAAACTCAGTCGTGTCAGTCACAGTCCAGCTGTT  
GATAGCGACTTAACAGAAAGTTAGACAAACATAAGCTAAAAATTGCACTTCTACCCCTGGGAATGGGGAGAAAAGGAATCTACCCCAA  
GACCAAAATAGTAAGTCTGTTCTGGCCTGAACATCCAGAATTATGGAGGCTTACTGTCGGCTCACACCACATTAGAATTGGTCTGGAAATCA  
AACTTTAGAAACAAGAGATCGTAAGCCATTATACTATTGACCTGAATTCCAGTCAGTCAGTTCTTACAAAGTTGGTAAAGCCCCCTTATATG  
CTAGTTAGGAATATAGTTATTAACAGACTCCCAGACTATAACCTGTGAAATTGAGATTGCTTACTTGCAATTGATTCAACTTTAATTGGC  
AACACCGTATTCTGCTGGTGGAGAGCAAGAGAGGGCGTGGATCCCTGTCATGGACCGACCGTGGGAGGCTCGCCATCCGTCATATTGAC  
TGAAGTATTAACAGGTTTAAATAGATCCAAAAGATCATTTCAGTGTGATTATGGGATTAATTGCACTGAGCTACAGCTACGGCTGCT  
GTAGCAGGAGTGCATTGCACTCTCTGTCAGTAAACTTGTAAATGATTGGCAAAAAATTCTACAAGATTGGAATTCAACATCTAGTA  
TTGATCAAAATGGCAAATCAAATTAAATGATCTTAGACAAACTGTCATTGGATGGGAGACAGACTCATGAGCTTACAACATCGTTCCAGTTACA  
ATGTAAGTGGAAATCGTCAGATTGTTAGACACCCAAATTATAATGACTCTGAGCATCACTGGGACATGGTTAGACGCCATCACAGGAAAGA  
GAAGATAATCTCACTTTAGACATTCCAAATTAAAGACAAATTTCGAAGCATCAAAAGCCCATTAAATTGGTGCAGGAACGTGAGGCAATTG  
CAGGAGTTGCTGATGGCCTCGCAAATCTTAACCCGTCACTTGGGTTAAGACCAATTGGAAGTACTACGATTATAATCTCATATTACCTTGTG  
CTGTTTGCTGTTAGTCTGCAGGTGACCCACAGCTCGGAAGACAGCGACCA

**SEQ ID 23**

ATGCAAAGAAAAGCACCTCCGGAGACGGAGACATCGAATCGACGCCGTTGACTCACAAGATGAACAAAATGGTACGTAGAAGAACAGATGA  
 AGTTGCCATCCACCAAGAAGGCAGAGCCCAACTTGGCACAACATAAGAAGCTGACGCAGTTAGCTACAAAATATCTAGAGAACACAAGGTGAC  
 ACAAAACCCCAGAGAGTATGCTGCTGAGCCTTGATGATTGATCATGGTAAAGTCTCCTATGCTGAGCAGCTGAGCTAATCTACCC  
 TACTGGGCATATGCTGCTTCCGCCCTAATTCGGCAGTCACATCGATGGATAATCCTACAGAAGTATATGTAATGATAGTGTATGGTACCTG  
 GCCCCATAGATGATCGCTGCCCTGCCAACCTGAGGAAGAAGGGATGATGATAAAATATTCCATTGGGTATCATTATCCTTATGGCTAGGGAG  
 AGCACCAGGATGTTAATGCTGAGTCCAAATTGGTGGTAGAAGTACCTACTGTCAGTCCATCTGTAGATTCACTTACATGGTAAGCGGG  
 ATGTCACTCAGGCCACGGTAAATTATTAACAGACTTTCTTACAAAGATCATTAAATTAGACCTAAAGGAAACCTGCCCAAGGAAATC  
 CCAAAGAATCAAACAAATACAGAAGTTAGTTGGGAGAATGTCGGCAATAGCTGGTATATTACAAAATGAATTCGGAATTTATAGA  
 TTGGCACCTCGAGGTCAATTCTACCAAAATTGCTCAGGACAAACTCAGTCGTCAAAGTGCACAGTGCAGTCTGTTGATAGCAGCTAAC  
 GAAAGTTAGACAAACATAAGCATAAAAAATTGCAAGTCTTCTACCCCTGGGAATGGGAGAAAAGGAATCTCACCCCAAGACAAAAAATAGTA  
 GTCTGTTCTGGCTGAACATCCAGAAATTGGAGGCTACTGTCGGCTCACACACATTAGAATTGGTCTGGAAATCAAACCTTAAAG  
 AGATCGTAACCCATTATTAACATTGACCTGAATTCCAGTCAACAGTCTTACAAAGTTCGTAACAGCCCTTATATGCTAGTTGAGAAAT  
 ATAGTTATTAACACAGACTCCAGACTATAACCTGTGAAAATTGAGATTGCTTACTTCGATTGATTAATTGCAACACCGTATTCTGC  
 TGGTGGAGAGCAAGAGAGGGCTGTTGAGATCCCTGTGTCATGGACCCGACGGTGGGAGGCCCTGCCATCCGTCCATTGACTGAAGTATTAAAGG  
 TGTTTAAATAGATCCTAAAGATTCTTAACTTAAATTGCAAGTATTGGATAATTGCAAGTCAACGTCAGCTACGGCTGCTGAGCAGGAGTTGCA  
 TTGCACTCTCTGTTCACTGAAACACTTGTAAATGATTGGCAAAAAAATTCTACAAAGATTGCAATTCAACATCTAGATTGATCAAATTGG  
 CAAATCAAATTATGATCTAGACAAACTGTCATTGGATGGGAGACAGACTCATGAGCTTAGACACATCGTTCCAGTTACAATGTGACTGAAAC  
 GTCAGATTGTTGATTACACCCAAATTATAATGACTGAGCATCTGGGACATGGTTAGGCCATCTACAGGAAGAGAAAGATAATCTCACT  
 TTAGACATTCCAAATTAAAAGAACAAATTTCGAAGCATCAAAGGCCATTAAATTGGTCCAGGAACGGCAATTGCAAGGAGTTGCTGATG  
 GCCTCGCAAATTCTAACCCCTGCACTGGTTAAGACCAATTGGAAGTACTACGATTATAATCTCATATTAACTCTGCTGCTGTTGCTGTT  
 GTTAGCTGCAAGGTGACCCAACAGCTCCGAAGAGACAGCAGGACATGACGATGGCGTTTGTGAAAGAAAAGGGGA  
 ATGTTGGGAAAGCAAGAGAGATCAGATTGTTACTGTCGTGAG

**SEQ ID 24**

GTCACATGGATGGATAATCTATAGAAGTATATGTAATGATAGTGTATGGTACCTGGCCCAAGATGATCGCTGCCCTGCCAAACCTGAGGAAG  
 AAGGGATGATATAAATATTCCATTGCTATGCTTATCCTCTATTGCCCTAGGGAGAGCACCAGGATGTTAATGCCCTGCAAGTCCAAATTGGTT  
 GGTAGAAGTACCTACTGTCAGTCTAACAGTAGATTCACTTACATGGTAAGCGGGATGTCACTCAGGCCACGGTAAATTATTAACAGACTTT  
 TCTTATCAAAGATCATTAAATTAGACCTAAAGGAAACCTGCCCAAGGAAATTCCCAAAGAATCAAACATCAAACAGTAAATTGCTGAG  
 AATGTTGGCCAATAGTGGTGTATTACAAACAAATGAATTGGAACTTATTAGATTGGCCACTCGAGGTCATTCTACACAATTGCTCAGG  
 ACAAAACTCAGTCGTCCAAGTCACAAGTGAGTCCAGCTGTTGATACGGACTTAACAGAAAGTCTAGACAAACATAAGCATAAAATTACAGTCT  
 TTCTACCCCTGGGAATGGGAGAAAAGGAATCTCACCCCAAGACAGAAATAATAAGTCTCTTCTGGTCTGAACATCCAGAATTATGGAGGC  
 TTTGGCCTGACACCACATTAGAATTGGTCTGGAAATCAAACATTAGAAACAGAGATCGTAACGCCATTAACTATGACCTAAATTCCAGTCA  
 ACGGTCTTACAAAGTTCGTAAGCCCTTATATGCTAGTTGAGGAATATAGTTAAACAGACTCCAAACTATAACCTGTAACATT  
 GTAGATTGTTACTGCAATTGATTAATTGGCCACCGTATTCTGCTGAGAGCAAGAGAGGGCTGTTGATCTGTCCTGGA  
 CTGACCGTGGGAGGCCCTGCCATCCATTGACTGAAGTATTAAAGACATTAAAGATCCAAAGATTCTACCTTACCTTAATTGCA  
 GTGATTATGGATTAAATTGCAAGTCAACGTCACGGCTGCTGGCAGGAGTTGCACTCTCTGCTGAGTGGTAAACATTGTTAATGATTGG  
 AAAAGAATTCTACAAGATTGGAATTACAATCTAGTATTGATCAAATTGGCAATCAAATTATGATCTAGACAAACTGTCATTGGATGG  
 AGACAGACTCATGAGCTTAGAACATTGTTCCAGTTACAGTGTGACTGAAACAGTCAGATTGTTGATTACACCCAAATTATAATGAGCTGAG  
 CATCACTGGGACATGGTAGGCCATCTACAGGAAGAGAAAGATAATCTACTTACAGACATTCCAAATTAAACAAATTTCGAAGCATA  
 AAGCCATTAAATTGATGCCAGGAACGGCAATTGCAAGGAGTTGCTGATGGCTGCAAATTAACTCTGCACTTGGTTAAGACCATCG  
 AAGTACTATGATTATAACATCTATTAATCCTGTCCTGTTGCTGTTAGTCTGCAAGGTGACCCACAGCTCCGAAGAGACAGCGAC  
 CATCGAGAACGGCCA

**SEQ ID 25**

ATGGGGCCTCTCCAACCCGGGTTGCCCTCCGGCCATGATCCAAAGATTGGCTTAATTATAATTGATCTAAAGGATTGCTTTTACCATCC  
 CTCTGGCAGAGCAGGATTGAAAAATTGCTTACTATACCGCCATAAAATAAAAGAACAGCCACCGAGTTCACTGAGAAAGTGTACCTCA  
 GGGAAATGCTTAATAGTCCAACATTGTCAGACTTTGCTAGGTCAGCTCTCAACCGAGTGGAGAGAAAAGTTTCAGACTGTTATATTATT  
 ATTGATGATATTGTTGCTGAGAAACGAAAGATAATTGACTGTTATACATTCTGCAAGCAGAGGTGCAATGCTGGACTGCAATAG  
 CATCCGATAAGATCCAAACCTACTCCCTTCAATTAGGGATGCAAGATAGAAAATTAGAAAATTAGGCCACAAAATTAGAAATAAGAAAAGA  
 CACATTAAAACACTAAATGTTCAAAATTACTAGGGAGATTAAATTGGATTGCCAACTCTAGGCATTCTACTTATGCCATGTCATTG  
 TTCTCTATCTAAGGGAGACTCAGACTAAATGTCAGAAAGATAATTAAACCCAGGGCAACAAAAGAAAATTAAATTAGTGGAAAGAAAATT  
 CAGCGCAAATAAAAGAATAGATGCCATTAGCCCACTTCAACTTTGATTTGCACTGCACTCTCCAAACAGGCATCATTATC  
 TCTTGTGGAGTGGTCACTCTCTCAGTACAGTTAAGACTTTACATTGACTGTCAGTCAATTAGCTACATTAATCGGTCAAGAACAGATT  
 ATAACAAAATTATGGAATGCCAGACAAAATTGGTCTGCTTAACCAAGGAACAAGTTAGACAAGCTTATCAATTCTGGTCACTGG  
 TTGGTCTGCTAATTGTTGGGACTTATTGATAATTCACTACCCAAAAGAACAGTCTCAGTTAAATTGACTACTTGGATTCTACCTAA  
 TACCAAGACGTGAACCTTAAAGAACAGCTAACAGTATTACTGATGGTCCAGCAATGGAAAAGCAGCTTACAGGGCCGAAAGAAC  
 AACAGACTAACACTTCAATCGGCTCAAGAGACAGGAGTTGGTCACTACAGTGTACAGGTTACAGGTTACCAACCTATCA  
 CATATGAGTACAGGCTACAAGGGATGTTGAGACAGCTTAATTAGCATGGATGATGGTCACTAACACCAGCTATTCAATT  
 ACAACAAAC

TGTAAGAAAGAAAATTCCCATTTATTAATTACTTATTCGAGCACACACTAATTACAGGGCCTTGACTAAAGCAATGAACAAGCTGACTTA  
CTGGTATCATCTGCACTCATAAAAGCACAAGAACCTCATGCTTGACTIONCATGTAATGCAGCAGGATTAAAAAACAAATTGTATGTCACATGGAAAC  
AGGCAAAAGATATTGTACACATTGCAACCGAGTGTCAAGTCTACACCTGCCACTCAAGAGGCAGGAGTTATCCAGGGCTGTCTCTTAATGC  
ATTATGCCAATGGATGTACGCATGTACCTCATTTGAAGATTATCATATGTTATGTAACAGTTGATACTTATTACATTTCATATGGGCAACT  
TGCCAAACAGGAGAAAGTACTTCCCAGTAAAAACATTATTGTCTTGTGCTGTAATGGGAGTTCAGAAAAAAACTCAAACAGTACAATGGAC  
CAGGATATTGTAGTAAAGCTTCCAAAAATTCTAAGTCAGTGGAAATTTCACATACAACAGGAATTCTTATAATTCCAAGGACAGGCCATAGT  
TGAAAGAACTAATAGAACACTCAAAACTCAATTAGTTAACAAAAAGAAGGGGAGACAGTAAGGAGTGTACCTCCTAGATGCAACTTAATCTA  
GCACTCTATACATTAAATTTTAACATTATAGAAATCAGACTACTTCTGAGAACACATCTACTGGTAAAGAACAGGCCACATGAAG  
GAAAACATAATTGGTGGAAAGATAATAAAAAAGACATGGAAATAGGGAGGTATAACGTGGGGAGAGGTTTGCTGTGTTACCAGGAGA  
AAATCAGCTTCTGTGGTTACCCACTAGACATTGAAGTCTACAATGAACCCATGGAGATGCAAAGAAAAGGGCCTCACGGAGATGTTAAC  
CCAGTCACATGGATGGATAATCCTATAGAAGTATATGTTAATGATAGTATGGTACCTGGCCCATAGATGATCGCTCCCTGCCAACCTGAGG  
AAGAAGGGATGATGATAATATTCCATTGGTATCGTTACCTCTATTGCTTAGGGAGACACCAGGATGTTAATGCTGAGTCAAAATTG  
GTTGGTAGAAGTACCTACTGTCAGTCCCATCAGTAGATTCACTTATCACATGTTAAGCGGGATGTCACTCAGGCCACGGTAATTATTACAAGAC  
TTTCTTATCAAAGATCATTAAATTAGACCTAAAGGGAAACCTTGGCCCAAGGAAATTCCAAAGAATCAAAAAATACAGAAGTTTGTGTTGGG  
AAGAATGTTGGCCAATAGTGGCTGATATTATAAAACATGAATTGGAACTATTATAGATGGGACCTCGAGGTCAATTCTACCACAAATTGCTC  
AGGACAAACTCAGTCGTGTCAGTGACAAGTGAGTCCAGTGTGATAGGCACTTAACAGAAAGTTAGACAAACATAAGCATAAAAATTGCG  
TCTTCTACCCCTGGGAATGGGGAGAAAAGGAATCTACCCAAAGACCAAAATAGTAAGTCTGTGCTGCTGACATCCAGAATTATGGA  
GGCTTACTGTGGCCTCACACCACATTAGAATTGGCTGGAAATCAAACATTAGAAACAAGAGATTGTAAGCCTTATCTGTCACCTAAATT  
CAGTCTAACAGTCTTACAAAGTGGTAAAGCCCCCTTATGCTAGTTGAGGAATATAGTTATTAAACAGACTCCAGACTATAACCTGT  
AAAATTGAGATTGCTACTTGCATTGATTCAACATTAAATTGGCAACACCGTATTCTGCTGGTGGAGAGACAAGAGAGGGCTGTGGATCCCTGTG  
CCATGGACCGACCGTGGAGGGCTCACCACATCGCCATATTGACTGAAGTATTAAAGGTGTTAAATAGATCCAAAAGATTCACTTTACTT  
AATTGCACTGATTATGGGATTAATTGCACTGACAGCTACGGCTGCTGAGCAGGAGTTGCACTGACTCTCTGTCAGTCAGTAAACTTGTAAAT  
GATTGGAAAAGAATTCTACAAGATTGTTGAAATTACAATCTAGTATTGATCAAAATTGGCAATCAAATTAAATGATCTTAGACAAACTGTCATT  
GGATGGGGAGACAGACTCATGAGCTAGAACATGTTCCAGTTACAATGTCAGTGGAAATACGTCAGATTGTTGATTACACCCAAATTATAATG  
GTCTGAGCATCACTGGGACATGGTAGACGCCATCTACAGGGAAAGAGATAATCTCACTTACAGGAAATTCACATTCAAATTAAAAGAACAAATTTCGAA  
GCATCAAAGGCCATTAAATTGGTGCAGGAACGTGAGGCAATTGCACTGAGGAGTTGCTGATGGCTCGCAAATCTAACCTGTCACTGGGTTAGA  
CCATTGGAAAGTACATGATTATAATCTCATTTAATCCTGTCGCTGTTGCTGTTAGTCTGCACTGGTACCCAAACAGCTCCGAAGAGA  
CAGCGACCATCGAGAACGGGCCATGATGACGATGGCGTTTGTGCAAAAGAAAAGGGGAAATGTGGGAAAAGCAAGAGAGATCAAATTGTTACT  
GTGTCGTGTTAG

SEQ ID 26

MQRKAPPRRRRHNRNRAPLTHKMNMVTSEEQMLPKSTKKAEPPTWAQLKKLTQLATKYLENTKVQTPESMILALALMIVSMSVSLPMPAGAAAANYT  
YWAYVPFPPLIRAVTWMDNPTEVYVNDSVWPGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAQVNWLVEVPTVSPICRFTYHMVSG  
MSLRPRVNYLQDFSYQRSLKFRPKGKPCPKIPEKESKNTEVLVWECEVANSAVILQNNEFGTIIDWAPRGQFYHNCSGQTQSCQSAQVSPAVDSL  
ESDLKHKKKLQSFPWEGKGISTPRPKIVSPVGSPHEPELWRLTASHHIRIWSGNQTLETRDRKPFYTIDLNLSSLTVPQSCVKPPYMLVVGN  
IVIKPDQSQTITCENCRLTCIDSTFNWQHRIILVRAREGVWIPVSMDRPWEASPVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAAVAGVA  
LHSSVQSVNFVNDWQKNSTRLWNSQSSIDQKLANQINDLRQTVIWGDRILMSLEHRFQLQCDWNTSDFCITPQIYNESEHHWDVMRRHLQGREDNL  
LDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLPVTWVKTIGSTTIINLILILVCLFCLLVCRCTQQLRRSDHRERAMMTMAVLSKRKGG  
NVGKSKRQDQIVTVS

SEQ ID 27

MGPLQPGPLSPAMIPKDWPILLIDLKDCFTIPLAEQDCEKFATIPIANNKEPATRFQWKVLPGQMLNSPTICQTFVGRALQPVREKFSDCYIIHY  
IDLICLAAETDKDLIDCYTFLQAEVANAGLAIASDKIQTSTPFHLYLGMOIENRKIKPQKIEIRKDTLTLNDFQKLLGDIWINRPTLGIPTYAMSNL  
FSILRGDSDLNSQRILTPEATKEIKLVEEKIQSAQINRIDPLAPLQLLIFATAHSPTGIIIQNTDLVEWSFLPHSTVKTFTLYLDQIATLIGQTRLR  
ITKLCGNDPKDVKVPLTKEQVRQAFINSQAWQIGLANFVGVLIDNHYPKTKIFQFLKLTTWLPKIRRREPLENALTVFTDGSSNGKAAYTPKERV  
KTPYQSAQRDELVAVITLQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTURKRNFYPYITYIRAHTNLPGLTAKANEQADL  
LVSSALIKAQELHALTHVNAAGLKNFKFDVTWKQAKDIVQHCTQCQVLHLPTQEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSHFIWAT  
CQTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNQSQQAIVERTNRTLTKTQLVKQKEGGDSKECTPQMQLNL  
ALYTLNFLNIYRNQTTTSAEQLHTGKKNSPHEGKLIWWDKDNKNKWTWEIGKVITWGRGFACVSPGENQLPVWLPTRLHKFYNEPIGDAKKRASEMVT  
PVTWMDNPPIEVVYVNDSIWVPGPIDDRCPAKPEEEGMMINISIGYRYPPICLGRAPGCLMPAVQNWLVEPVTSPISRFTYHMVSGMSLRPVRNYLQD  
FSYQRSLKFRPKGKCPKEIPKESKNTEVLWVEECVANSAILXNNEGFTIIDWAPRGQFYHNCSGQTQSCPASQVSPAVDSLTDLESLDKHKKKLQ  
SFYPWEWGEKGISTPRPKIVSPVSGPEHPELWRLTASHHIRIWSGNQTLERDCKPFYTVDLNSSLTVPLQSCVKPPYMLVGNIVIKPDQSQTITC  
ENCRLLT CIDSTFWQHRIILVRAREGWIPVSMDRPWEAPS VHLTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAAVAGVALHSSVQSVNFVN  
DWQKNSTRLWNQSOSIDQKLANQINDLRQTVIWMGDRILMSLEHRFQLQCDWNTSDFCITPQIYNESEHHWDMVRRHQGRDNLTLIDSKLKEQIFE  
ASKAHLNLVPGTEAIAGVADGLANLPVTWVKTIGSTSIIINLILILVCLFCLLVCRCTQQLRRDSDHRERAMMTMAVLSKRKGNGVGSKRDQIVT  
VSV

SEQ ID 28

MNPSEMQRKKAPPRRRRHNRNAPLTHKMNKMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVQTPESMILLAIVSMMVSLPMPAGAA  
AANYTYWAVVPFPPLIRAVTWMDNPTEVVNDSVWVPGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAGCLMPAVQNWLVEVPTVSPICRFTY

HMVSGMSLRPRVNYLQDFSYQRSLKFRPKGKPCPEIPKESKNTEVLVWEECVANSAVILQNNEFTIIDWAPRGQFYHNCSGQTQSCPSAQVSPAV  
DSDLTESLDKHKKKLQSFPWEWGEKGISTPRPKIVSPVSGPEHPELWRLTVASHHIRIWSGNQTLETRDRKPFTIDLNSSLTVPLQSCVKPPYM  
LVVGNIVIKPDQSQTITCENCRLLCIDSTFNWQHRILLVRAREGVWIPVSMDRPWEASPVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAA  
VAGVALHSSVQSVNFVNWDQKNSTRWLWNSSIDQKLANQINDLRQTVIWMGDRMLSLEHRFQLQCDWNTSDFCITPQIYNESHHWDMVRRLHLOGR  
EDNLTLIDISKLKEQIFEASKAHLNLVPCTEAIAGVADGLANLNPTWVKTIGTTIINLILVCLFCLLVCRCTQQRRDSDHRRERAMMTMAVLS  
KRKGNGVGSKRDQIVTVSV

**SEQ ID 29**

AGTTCTACAATGAACCCATCAGAGATGCAAAGAAAAGCACCTCCGGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAAGATGAACAAAA  
TGGTGACGTCAGAAGAACAGATGAAGTGCATCCACCAAGAAGGCAGAGCCGCAACTGGGCACAACAAAGAAGCTGACGCAGTTAGCTACAAA  
ATATCTAGAGAACACAAAGGTGACACAAACCCCAGAGAGTATGCTGCTGAGCCTGATGATTGATCAATGGTGGTAAGTCTCCCTATGCCTGCA  
GGA

**SEQ ID 30**

TCTGCAGGTGACCCAACAGCTCCGAAGAGACAGCGACCATCGAGAACGGCCATGA

**SEQ ID 31**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAGPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPSNSEE  
TATIENG

**SEQ ID 32**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYLENTKSAGVPSNSEEATIENG

**SEQ ID 33**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 34**

MNSLEMQRKVWRWRHPNRLASLQVYPAAPKRQQPARMGHSDDGGFVKKRGGYVRKREIRLSLCLRKGRRHKLHFVLY

**SEQ ID 35**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYLENTKVLQVYPTAPKRQRPSRTGHDDGGFVEK  
KRGKCGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 36**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYLENTKVLQVYPTAPKRQRPSRTGHDDGGFVEKKG  
CGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 37**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYLENTKVLQVYPTAPKRQRPSRTGHDDGGFVEKKG  
CGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 38**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 39**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 40**

MEYKNRHLKFYNEPIGDAKKRASTEMSAGVPSNSEEATIENG

**SEQ ID 41**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 42**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYLENTKSAGVPSNSEEATIENG

**SEQ ID 43**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMKVTSSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPSNSEE  
TATIENG

**SEQ ID 44**

MVTPVTWMDNPIEVYVNDSWVPGPTDDRCPAKPEEEGMMINISIVRYPPICLGRAPGCLMPAVQNCLQVYPTAPKRQRPSRTGHDDGGFVEKKR  
KGCGEKQERSDCYCVCVERSRRRLHFVLY

**SEQ ID 45**

MVTPVTWMDNPIEVYVNDSWVPGPTDDRCPAKPEEEGMMINISIGLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRR  
RRLHFVMC

**SEQ ID 46**

MNSLEMQRKVWRWRHPNRLASLQVYPAAPKRQQPARMGHSDDGGFVKKRGGYVRKREIRLSLCLRKGRRHKLHFDLY

10/25

SEQ ID 47

MNSLEMQRKAPPRRRRHNRNAPLTHKMNKMTSEEQMLSSTKKAEPPTWAQLKKLTQLATKYLENTKVQTPESMLLAALMIVSMVSLPMPAGAA  
AANYTYWAYVPFPPLIRAVTWMNDNPTEVYVNDSVVPGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNLVEVPTVSPICRFTY  
HMSAGVPSSEETATIENGPM

SEQ ID 48

MNPSEMQRKAPPRRRRHNRNAPLTHKMNKMTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTLQVYPTAPKRQRPSRTGHDDDDGGFVEKKRGKCGEKOERSDCYCVCVERSRRRLHFVMY

SEQ ID 49

MNPSEMQRKAPPRRRRHNRNAPLTHKMNKMTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVYPTAPKRQRPSRTGHDDGGFVEKKRGK  
CGEKOERSDCYCVCVERSRRRLHFVMY

SEQ ID 50

MNPSEMQRKAPPRRRRHNRNAPLTHKMNKMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYXLENTKVTQTPESMLLAALMIVSMVVYPTAPKRQ  
RPSRTGHDDGGFVEKKRGKGCEKOERSDCYCVVERSRRHLHFVMY

SEQ ID 51

GGCCGCGGAATTCTGACTCTAGGCCATTGATACGTGTATCTATATCATATAATGTACATTATGGCTCATGTCATGACGCCATGTCGTTGCA  
CATTGATTATTGACTAGTATTAACTAGTAATCAATTACGGGTCATTAGTCATAGCCATATATGGAGTTCGCGTACATAACTACGGTAAATG  
GCCGCCTGGCTGACCGCCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTCCTAGTAAACGCCAATAGGGACTTCCATTGACGTCA  
ATGGTGGAGTATTACGGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCCCTATTGACGTCAATGACGGTAAATG  
CCCCCTGGCATTATGCCAGTACATGACCTTACGGACTTCTACTTGGCAGTACATCTACGTATTAGTCATGCCATTACCATGGTATGCCG  
TTTGCAGTACACCAATGGCGTGGATAGCGTTGACTCACGGGATTCCAAGTCTCCACCCATTGACGTCAATGGAGTTGTTGGCACCA  
AAATCAACGGACTTCCAAATGCTGAATAACCCCGCCCGTGAACCAAATGGCGTAGGCGTAGCGTGTACGGTGGGAGGCTATATAAGCAGAGCT  
CGTTAGTGAACCGTCAAGATGCCGTGAGACGCCATCCACGCTTTGACCTCATAGAACACCCGGACCGATCCAGCCTCCGGCGCCGGAAAC  
GGTCATTGGAACCGGATTCCCGTGCAGAGTACGTAACTACGCCATTAGACTCTATAGGCACACCCCTTGGCTTATGCATGCTATACT  
GTTTTGGCTGGGCTATACACCCCGCTTCTTATGCTATAGGTGATGGTATAGCTTAGGCTATAGGTGTTGGTTATTGACCATTATTGACCAC  
TCCCCTATTGGTACGATACTTCCATTACTAATCCATAACATGGCTTGCACAACATCTTATGGCTATATGCCAATACTCTGCTCCTCAG  
AGACTGACACGGACTCTGATTTCACAGGATGGGCTCCATTATTACAAATTACATATAACAAACGCCGTCCCCGTGCCCCAGTT  
TATTAACATAGCGTGGATCTCACCGCGAATCTGGTACGTGTTCCGGACATGGCTCTTCCGGTAGCGCGGAGCTCCACATCGAGCCCT  
GGTCCCAGCTCCAGGGCTCATGGCGCTCGCAGCTTCCCTAACAGTGGAGGCCAGACTTAGGCACAGCACATGCCAACACCACCG  
TGTGCCGACAAGCCGTGGCGTAGGGTATGTCGAAAATGAGCTGGAGATTGGGCGACGAGTGAAGACTTAAGCAGCG  
GCAGAAGAAGATCCAGGCAGCTGAGTTGATCTGATAAGACTGAGCTAACCTGGCTTACCGGAGGCTTAAACGGTGGAGGGCAGTCTAGTCT  
GAGCAGTACTCGTGTGCTGCCGCGCCACAGACATAATAGCTGACAGACTAACAGACTGTTCTTCCATGGCTTTCTGCAGTCACCGTCg  
tcgcacccaccatgaacccccagcgagatgcgcacggccccccccccgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc  
gatgttgaccacgcgaggagcagatgaagctgcccagcacaagaaggccgagccccccacctggggccagctgaagaactgc  
ccgc  
aagtacctggagaacaccaaggatgcacccagccccagacggatgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc  
gcagcgaggagacgcgcacatcgagaacggcccccttaaagaattcAGACTCGAGCAGACTAGAAAGCATGGATATCGGATCCACTACCGCTT  
AGAGCTCGTGTGACTGCTCGTGTGCTTCTAGTGCAGCCATGTTGCTTGGCCCTCCCGTGCCTTCTGACCTGGAAAGTGCCACTC  
CCACTGTCCTTCTAAATAAAATGAGGAAATTGATCGCATTGTCGAGTAGGTGTCATTCTATTCTGGGGGTGGGGCAGGACAGCAAGGG  
GGAGGATTGGGAACACAATGCAAGGGGGTGGGGAAAGAACTCAGCATGAGATCCCCGGCTGGAGGATATCCAGGGCGTCCGGAAAAGAT  
TCCGAAAGCCAACCTTCATAGAAGGGCGCGTGAATCGAAATCTCGTGTGAGTAGGTGTCATTCTGGGGGTGGGGCAGGACAGCAAGGG  
CCGTCAGAAGAACTCGTCAAGAAGGGCGATAGAAGGGCGATGCCGTGCGAATCGGGAGGCCATACCGTAAAGCACGAGGGTCAGCCATT  
GCCGCCAGCTCTCAGCAATACCGGGTAGCCAACGCTATGTCCTGATAGCGGTCCGCCACACCCAGCCGCCACAGTCGATGAATCCAGAAAAG  
CGGCCATTTCACCATGATACTCGCAAGCAGGCATCGCATGGTCACGACGGAGATCTCGCCGTGGCATGCCGCTTGAGGCTGCCGAACA  
GTTCGGCTGGCGCGAGCCCTGATGCTCTCGTCCAGATCATCTGATCGACAAGACGGCTCCATCCGAGTACGTCGCTCGTGCATGCGATGTT  
CGCTTGGTGTGAAATGGCAGGTAGCGGATCAACGTTAGCAGCCGCGCATGTCATCAGCCATGATGGATACTTCTCGCAGGAGCAAGGTGA  
GATGACAGGAGATCTGCCCGCAGCTCGCCAAAGCAGCCAGTCCCTCCGCTTCAGTACAAGCTGCGACAGTCGCGAAGGAACGCCG  
TCGTGGCCAGCCAGATAGCGCGTGCCTCGTCCAGTCATTAGGGCACCGAGTCGGTCTTGACAAAAAGAACCGGGCGCCCTGCG  
TGACAGCCGAACACGGCGCATCAGAGCAGCCGATGTCGTTGCTCCAGTCAGCCGAATAGCCCTCTCCACCCAAGCGCCGGAGAACCTGCG  
TGCAATCCATCTGTTCAATCATCGCAAACGATCTCATCTGTCCTTGATCAGATCTTGATGCCCTCGCCATCAGATCTTGGCGCAAGAAAAG  
CCATCCAGTTACTTGCAGGGCTTCCAAACCTTACAGAGGGCGCCAGCTGGCAATTCCGGTGCCTGTCGTCATAAAACGCCAGTCTAG  
CTATGCCATGTAAGCCACTGCAAGCTACCTGCTTCTTTGCGTTGCGTTCCCTGTCAGATAGCCGAATAGCCCTCTCCACCCAAGCGCCGGAGAACCTGCG  
CAGCACCGTTCTCGCGACTGGCTTCTACGTGTTCCGCTTCTAGCAGCCCTGCGCCCTGAGTCGCTGCGCAGCGTGAAGCTAATTCTG  
TAAATTTGTTAAATCAGCTATTGTTAACCAATAGGCCAAATCGCAAATCCCTATAAAATCAAAGAACAGTCCGAGATAGGGTTGAGTGT  
TGTCCAGTTGGAAACAAGAGTCCACTATTAAAGAACGTTGACTCCACCGTAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCGGATCAGCTTA  
TGCCTGTAAGAACAGATGCCAAAGGAGAAAATACCGCATCAGGCCGCTTCCGCTTCCGCTACTGACTCGCTGCGCTCGGCTCG  
GCTGCGCGAGCGGTATCGCTACTCAAAGGCCGTAATACGGTTATCCACAGAACAGGGGATAACGCCAGGAAGAACATGTGAGC  
AAAAGGCCAGGAACCGTAAAAGGGCGCGTGTGGCGTTTCCATAGGCTCCGCCCTGACGAGCATCACAAAATCAGCTCAAGTCAG  
GGTGGCGAACCCGACAGGACTATAAGAACGAGTACCCAGGGCTTCCCGTGGAGCTCCCTCGTGCCTCTCTGTTCCGACCCCTGCG  
TACCGGATA

CCGTCCGCCCTTCTCCCTCGGAAGCGTGGCCTTCTCATAGCTCACCGTAGGTATCTAGTCAGTCAGGTTAGGTCTGTTCCCTCCAAGCTGGGCTG  
TGTGCAACGAAACCCCCGTCAGCCCACCGCTGCCATTCCGTAACTATCGTCTGAGTCACGACCTATGCCACTGG  
CAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGAGCGGTGCTACAGAGTCTGAAGTGGTGGCCTAACACGGCTACACTAGAAGGAC  
AGATTTGGTATCTGCCTCTGCTGAAGCCAGTACCTCGGAAAAGAGTGGTAGCTCTGATCCGCAAACAAACCACCGCTGGTAGCGGTGGT  
TTTTGGTGTGCAAGCAGCAGATTACCGCAGAAAAAAGGATCTAAGAAGATCCTTGATCTTCTACTGAACGGTAGTCCCCACCGGAATTGCG

**SEQ ID 52**

GCGCGGAATTTCGACTCTAGGCCATTGCATACTGGTATCTATATCATAATATGTACATTATATTGGCTCATGCCAATATGACCGCCATGTTGA  
CATTGATTATTGACTAGTTAAATAGTAATCAATTACGGGTCTTACGGCATATGCCATATATGGAGTCCGCCATTACATACTACGGTAATG  
GCCGCCCTGGCTGACGCCAACGACCCCCGCCATTGAGCTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTCCATTGACGTCA  
ATGGGTTGGAGTATTACGGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATGCCAAGTCCGCCCTATTGACGTCAATGACGGTAATGG  
CCCGCCTGGCATTATGCCAGTACATGACCTTACGGGACTTCCACTTGGCAGTACATCTACGTATTAGTCATGCCATTACCATGGTATGCCGT  
TTTGGCAGTACACCAATGGGCGTGGATAGCGGTTGACTCACGGGATTTCAAGTCTCCACCCATTGACGTCAATGGGAGTTGTTGCCACCA  
AAATCAACGGGACTTCCAAATGTCGTAATAACCCGCCCGTGAACGAAATGGCGGTAGGCGTACGGTGGAGGTCTATATAAGCAGAGCT  
CGTTTACTGAAACCGTCAGATGCCCTGGAGACGCCATCCACGCTGTTTGACCTCCATAGAAGACACCGGACCGTACGCCAGCCTCCGGCGGGAAAC  
GGTGCATTGGAACCGGATTCCCGTGCAAGAGTGAACGTAAGTACCCCTATAGACTCTATAGGCACACCCCTTGGCTCTTATGCATGCTACT  
GTTTTGGCTGGGCTATACACCCCGCTTCTTATGGCTATAGGTGATGGTATAGCTTAGCCTATAGGTGTTGTTATTGACCAATTATTGACAC  
TCCCCTATTGGTACGATACTTCCATTACTAATCATAACATGGCTTTGCCACAATTCTCTATTGGCTATATGCCAATACTGTCCTTCAG  
AGACTGACACGACTCTGTATTTTACAGGATGGGTCCATTATTACAAATCACATATAACAAACGCCGTCACCCCTGGCAGCTTCCACATCCGACCCCT  
TATTAAACATAGCGTGGGATCTCCACCGAATCTGGTACGTCTCCGACATGGCTTCTCCGTTAGCGGGAGCTTCCACATCCGACCCCT  
GGTCCCATGCCCTCAGCGGCTCATGGCGCTCGCAGCTCCCTCTAACAGTGGAGGCCAGACTTACGGCACACGACAATGCCACCCACCCAG  
TGTGCGCACAAGCGTGGCGTAGGGTATGTCGAAAATGAGCTCGAGATTGGGCTCGCACCGCTGACGAGATGGAAGACTTAAGGAGCG  
GCGAGAAGAAGATGCAAGCAGCTGAGTTGTGATTCTGATAAGAGTCAGAGTAACCCGTTGGGTGCTGTTAACGGTGGAGGGCAGTGTAGTCT  
GAGCAGTACTCGTGTGCTCCCGCGCACCAGACATAATAGTCAGACTAACAGACTGTTCTTCCATGGTCTTCTGAGTCACCGTc  
tgcacgccatcatgaaacccagcgagatgcagcgcaaggcccccccgccgcaccgcacccgcggccactggccatctggccactggccacc  
gtggtagccagcgaggagcagatgaagctgcccagccaagaaggcgagccccccactggccactggccatctggccatctggccacc  
aagtacctggagaacaccaaaaggtagccagcccccgagagcatgctgctggccctgtatgatgtgagcatgttgcggatggccatctggccacc  
acgcgcacgcggccacccgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgc  
ctactgcgtgtcgtagccgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgcacgc  
TATCGGATCCACTACGCGTAGAGCTCGCTGATCAGCTCGACTGTGCTCTAGTTGCGAGCCATCTGTTGCCCCCTCCCCGTGCCCTCCT  
GACCTGGAAGGTGCCACTCCACTGTCTTCTAATAAAATGAGGAAATGCACTCGCATTGCTGAGTAGGTGTCATTCTATTGGGGGTGG  
GTGGGGCAGCACAGCAAGGGGAGGATGGGAAGACAATAGCAGGGGGTGGCGAAGAACCTCCAGCATGAGATCCCGCGCTGGAGGATCATCCAG  
CCGGCGTCCGAAAAGATCCGAAGCCAACCTTCACTAGAAGCGCGTGGAAATCGAAATCTCGTATGGCAGTTGGCGCGCTTGGTGG  
TCATTTCGAACCCCAGACTCCGCTCAGAAGAAACTCGTCAAGAAGCGATAGAAGGCATGCGTGAATCGGAGCGCGATACCGTAAAGCAG  
AGGAAGCGTCAGCCATTGCCGCAAGCTCTCAGCAATATCAGGTAACCGCTATGCTGATAGCGGTCCGCACACCCAGCCGCCAC  
AGTCGATGAATCCAGAAAAGGCCATTCCACCATGATATTGCAAGCAGCATGCCATGGTCAGCACGAGATCCTGCCGCGCTGGCATCG  
CCGCTTGAGCTGGCGAACAGTCGGCTGGCGAGCCCTGATGCTTCTCGCAGATCATCTGATCGACAAGACGGCTTCCATCCGAGTACGT  
GCTCGCTCGATGCGATGTTGCTTGGTCTGAATGGCAGGTAGCCGATCAAGCTATGCAAGCGCCATTGATCAGCCATGATGGATACTT  
TCTCGCAGGAGCAAGGTGAGATGACAGGAGATCTGCCCGCGACTCTGCCAATAGCAGCAGTCCCTCCCGCTTCAGTGACACGTCGAGCAC  
AGCTGCGCAAGGAACGCCGTCGTGGCGACCCACGATAGCCGCGTGCCTCGTCAGTCATTGAGGCACCGGACAGGTGGCTTGACAAAA  
AGAACCGGGCGCCCGTGCCTGACAGCGGAACCGCCGATCAGAGCAGCGATTGCTGTCAGCCAGTCAGCCGAATAGCTCTCCACCC  
AAGCGGCCGAGAACCTGCTGCAATCATCTTGTCAATCATGCGAAACGATCCTCATCTGCTCTGATCAGATCTGATCCCTGCGCCATCA  
GATCTTGGCGCAAGAACCCATCCAGTTACTTGCAAGGGCTTCCACAGAGGGCGCCCGACTGCCAATCCGTTGCTGTC  
CATAAAACGCCAGTCAGTATGCCACTGTAAGCCACTGCAAGCTACCTGTTCTCTTGCCTGCGTTCCCTGTCAGATAGCCAGT  
AGCTGACATTATGCCGTTCTGCGGACTGGCTTCTACGTGTTCCCTTAGCAGCCCTGGCCCTGACTGCTTGG  
GGCTGAAGCTAATTCTAGTTAAATTGGTAAATCAGCTCATTTAACCAATAGCGGAATCGGAAATCCCTATAATCAAAGAATAG  
CCCGAGATAGGGTGAGTGTGTTCCAGTTGGAAACAAGAGTCACATTAAAGAACGTTGACTCCAGCTGCAAGGGGAAACCGTCTACAG  
GCGATGGCGGAGTCAGCTATGCCGTTGAAATACCGACAGATGCGTAAGGAGAAAATACCGCATCAGCGCTTCCGCTTCCGACTGAC  
TCGCTGCGCTGGCTGCGGAGCGGTATCAGCTACTCAAAGCGTAATACGGTATCCACAGAATCAGGGATAACGCAAGGAAAGA  
ACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGTTGCTGGCTTCTCATAGGCTCCGCCCTGACGAGCATACAA  
AAATCGACGCTCAAGTCAGAGGTGGCGAACCCGACAGGACTATAAGATACCGCCGTTCCCTGGAAGCTCCCTGCGCTCTCTGTC  
ACCCCTGCCGTTACCGGATACCTGTCGCCCTTCTCCCTGCCGAAGCGTGGCGTTCTCATAGCTCACGCTGAGGTATCTCAGTCGGTGTAG  
TCGTTGCGCTCCAAGCTGGGCTGTCAGCAACCCCCCTGTCAGCCGACCGCTGCCATTCCGTAACTATCGTCTGAGTCACGACCCGGTAAG  
ACACGACTTATGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGAGCGGTGCTACAGAGTCTGAGTCAGTGGCCTAAC  
TACGGCTACACTAGAAGGACAGTATTGGTATCTGCCCTGCTGAAGCCAGTTACCTCGGAAAAGAGTGGTAGCTCTGATCCGCAAACAA  
CCACCGCTGGTAGCGGTGGTTTTGTTGCAAGCAGCAGATTACCGCAGAAAAAAGGATCTAAGAAGATCCTTGATCTTCTACTGAACG  
GTGATCCCCACCGGAATTGCC

**SEQ ID 53**

GCCCGGGAATTCTGACTCTAGGCCATTGCATACGGTATCTATATCATAATATGTACATTATGGCTCATGTCATGCCAATATGACCGCCATGTGA  
 CATTGATTATTGACTAGTTATAATAGTAATCAATTACGGGCTATTAGTCATAGCCCATAATGGAGTCCCGCTTACATAACTACGGTAATG  
 GCCCGCCCTGCGTGACCGCCAAACGACCCCCGCCATTGACGTCATAATGACGTATGTCCTAGTAACGCCAATAGGGACTTCCATTGACGTCA  
 ATGGGTGAGTATTACGGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCCCTATTGACGTCAATGACGGTAATGG  
 CCCGCTGGCATTATGCCAGTACATGCCATTACGGGACTTCCACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTATGCCGT  
 TTTGGCAGTACACCAATGGCGTGGATAGCGGTTGACTCACGGGATTTCAGTCACGCCCTTACGGTCAATGGGAGTTGTTTGGCACCA  
 AAATCAACGGACTTCCAAAATGTCGATAAACCCGCCCGTGAACGCAAATGGCGTAGGGTGTACGGTGGGAGGTATATAAGCAGAGCT  
 CGTTAGTGAACCGTCAGATGCCCTGGAGACGCCATCCACGCTGTTGACCTCCATAGAACAGACCCGGACCGATCCAGCCTCCGCCGGAAC  
 GGTGCATTGGAACCGGGATCCCGTGCAGAGTGACGTAAGTACCGCTATAAGCTATAGGCACACCCCTTGGCTTATGCTATGCTATACT  
 GTTTTGGCTGGGCTATACACCCCGCTTCTTATGCTATAAGGTGATGGTATAGCTTAGGCCTATAGGTGTTGGGTTATTGACCAATTGACCAC  
 TCCCCTATTGCTGACGATACTTCCATTACTAATCCATAACATGGCTTTGCCACAATATCTCTATTGGCTATATGCCAATACTCTGCTTCAG  
 AGACTGACACGGACTCTGTATTTTACAGGATGGGTCCATTATTATTACAAATTACATATACAACACGCCGCCCCGTGCCGAGTTT  
 TATTAACATAGCGTGGGATCTCCACCGAATCTCGGTACGTGTCGGACATGGCTCTCTCCGGTAGCGGGGAGCTCCACATCGAGCCCT  
 GGTCCTCATGCCCTCAGCGCTCATGGTCGCTCGGAGCTCCCTCTAACAGTGGAGGGCAGACTTAGGCACAGCACAATGCCAACACCAG  
 TGTGCCGACAAGCGGTGGCGTAGGGTATGTCGAAAATGAGCTCGGAGATTGGCTCGCACCGCTGACCGAGATGGAAGACTTAAGGCAGCG  
 GCAGAAGAAGATGCAAGGAGCTGAGTTGTTGATTCGATAAGACTCAGAGGTAACCTCCGTTGGCTGTTAACGGTGGAGGGAGTGTAGTCT  
 GAGCAGTACTCGTGCCTGCCGCCACCAGACATAATAGCTGACAGACTAACAGACTGTTCTTCATGGGCTTTCTGCAGTCACCGCT  
 tcgcacgcccaccatggggcaactgaaagtaatgccttatttcagctttattaaaatttttaagaagagggggagtttagacttctacaga  
 aaatctaattacgctattcaacaataagaaacaatttcgcctatgggttcagaacaggaaactttagatctaaagattggaaaaattggcaaa  
 gaattaaaacaacaaataggaaaggtaatcatccacttacatggtaatccgcattattaaagcaacttttagaaccattcaacag  
 gagaagatattttcagttcagtttgcatt  
 acattgttaatatgttagcagactctgtatggctcaagtcacgcacatgttgcactacagtcaattacaggagataataccctgaatcatcaaa  
 ttgggggaaggaggtccagaatatt  
 aacctcaaacacgggttagacaaggacaaaaacccaagaaaaatcaagttagaaaggacagactgtctatcccgcaatqccaactcagatacagta  
 tccacaatatcagccgttagaaaataagacccaccgttgttagttatcaataccgctgcacccgagcttcagttcgttatccgccttcagaggtt  
 caatacagaccccaagccgtgtcctgtgcacccataggccatccgcacccacagcgttgctcaattcaccagcaacacaggacg  
 cggcgtgtatccctcagcccccactgtgagacttaatcttcacagcatcagtagttgcacgggtgtgcactgcattgtatgaaagcc  
 aaaacacggcgttt  
 actagatgtgaaccccttccatgttagaaaatgttaaaatataaggaggttaacaatatttttttttttttttttttttttttttttttt  
 attccattgtctatggaaatagacttactccttatgactggaaatt  
 gtggattgtggatgatcagaaggatcggactaagccactgttaatataagcgcagaccaatttttttttttttttttttttttttttttt  
 tggagcaccatataacaaacaaatcagtgatcagaatggctttagaacaatgttagaaaggctttagcaggcctggggaaaatttttttt  
 gaacagctttccatt  
 agatgacaatgccccaaaatgttt  
 ccaggcagggttgcatt  
 ggctactctaggaggacaatgttagaacaatgttagggaaaatgttt  
 acagaatataataatcaagcttacagccatgttt  
 cattctaaatttgcatt  
 ttt  
 ggcacacggc  
 CTCGACTGTGCCCTCTAGTGCAGGCATCTGTGTTGCCCTCCCCGTGCCCTTGCACCTGGAGGTCCACTCCACTGTCTTCTCAA  
 TAAATGAGGAATTGATCGCATGCTGAGTAGGTGTCATTCTATTCTGGGGGGTGGGGCAGACAGCAAGGGGGAGGATTGGGAAGACA  
 ATAGCAGGGGGTGGCGAGAACTCCAGCATGAGATCCCGCGTGGAGGATCATCCAGCCGGCTCCGGAAAAACGATTCCAAGGCCAACCTT  
 CATAGAAGGCCGGTGGATCGAAATCTGTCATGGCAGTTGGCGTCCTGGTCCTGATTTGAAACCCAGAGTCCCGCTCAGAAGAACCTG  
 TCAAGAAGGCCGATAGAAGGCCGATGCCGTCGGAATCGGAGCGCGATACCGTAAAGCAGGAGGAGCGGTGAGCCATTGCCAAGCTCTCAG  
 CAATATCAGGGTAGCCAAACGCTATGCTCTGATAGCGCTGCCACACCCAGCGGCCAGCTGATGAATCCAGAAAAGCGCCATTTCACCAT  
 GATATTGCGCAAGCAGGATCGCCATGGTCAGCAGAGATCTCGCCGTCGGCATGCGCCTTGCCTGGCAACAGTCGGCTGGCGAGC  
 CCCTGATGCTCTCGTCCAGTCATCTGATGACAAAGACGGCTTCCATCGAGTACGTCGCTGATGCAATTTCGCTGGTGGTCGAATG  
 GGCAGGTAGCCGATAGCGTATGCAAGCCGCGATTGATCAGCCATGTCAGTCAGCTGACAGCTGCGCAAGGAACGCCGTGGCCAGCCACGAT  
 CCCCCGCACTCGCCCAATAGCAGCCAGTCCCTCCCGCTTCACTGACAGCAGGAGCTGGCTTGCACAAAAGAAGCCGGCAGGGAGA  
 AGCCCGCCTGCCCTCGCAGTTCATCAGGGCACCGGAGCTGGCTTGCACAAAAGAAGCCGGCAGGGAGAAGCCGGAGACCG  
 CGGCAGTCAGAGCAGCCGATGTCGTTGCCCCAGTCATAGCCGAATAGCCCTCAGCCAGGAGGAGAAGCCATCCAGTTACTTTG  
 AATCATGCGAAACGATCCTCATCTGTCCTGATCAGATCTGATCCCTGCGCATCAGATCTTGGCGCAAGGGAGGAGATGACAGGAGATCTG  
 CAGGGCTTCCCAACCTTACAGAGGGCGCCCGAGCTGGCAATTCCGGTTGCTGTCATGAGCTAGCCAGTACGTCGATGCCATGTAAGCC  
 CACTGCAAGCTACCTGCTTCTCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGC  
 ACTGGCTTCTACGTGTTCCCTCTTACGAGCCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGCCTTGC  
 AGCTCATTTTAACCAATAGGCCAAATCGGAAAATCCCTATAAAATCAAAGAATAGCCGAGATAGGGTGTAGTGTGTTCCAGTTGGAAACA

AGAGTCCACTATTAAAGAACGTTGGACTCCAAAGCTCAAAGGGCAGAAAACCGCTATCAGGGCGATGGCCGGATCAGCTTATGCCGTGTAACATACCG  
CACAGATGCGTAAGGAGAAAATACCGCATCAGGCCTCTCCGCTTCGCTACTGACTCCTGCGCTGGCTTCCGCTGCCGAGCGGTAT  
CAGCTCACTCAAAGCGGTAATACGGTTATCCACAGAATCAGGGATAACCGAGGAAAGAACATGTGAGCAAAGGCCAGCAAAAGGCCAGAACCG  
TAAAAAGGCCGCGTTGCTGGCTTTCCATAGGCTCCGCCCGCTGACGAGCATCACAAAATGACGCTCAAGTCAGAGTGGCAGAACCGACA  
GGACTATAAAGATAACAGGCCTTCCCTGAGCTCCCTGTCGCTCTCTGTTCCGACCCCTGCCGCTTACCGGATACTGTCCGCCCTTCCTCC  
CTTCGGGAAGCTGGCGCTTCTCATAGTCAGCTGAGGTATCTCAGTTCGGTGAGGTCTGCCAAGCTGGGTGTGTCACGAACCCCC  
CGTTCAAGCCGACGCCGCTGCCCTATCGGTAACTATCGTCTTGAGTCCAACCGTAAGACACGACTATGCCACTGGCAGCAGCCACTGGTAAC  
AGGATTAGCAGAGCGAGGTATGAGGCGTCAAGAGTTCTGAAGTGGTGGCTAACTACGGCTACACTAGAAGGACAGTATTGTTCTGCG  
CTCTCTGAGGCACTTACCTCGGAAAGAGTTGGTAGCTCTGATCCGCAAAACAAACCCACCGCTGGTAGCGTGGTTTTGTTGCAAGCA  
GCAGATTACGCCGAGAAAAGGATCTCAAGAAGATCCTTGTACTGAACGGTATCCCCACCGAATTGCG

SEQ ID 54

GGCCGGGATTTCGACTCTAGGCCATTGCATACGTGTATCTATCATATAATGTACATTATGGCTATGCCAATATGACGCCATGTTGA  
CATTGATTATTGACTAGTTATTAACTAGTAATCAATTACGGGGTCAATTAGTCATAGCCCATAATGGAGTTCGCGTACATAACTTACGGTAAATG  
GCCCGCTGGCTGACGCCAACGACCCCCGGCCATTGACGTCATAATGACGTATGTCCTAGTAAACGCAATAGGACTTCCATTGACGTCA  
ATGGGTGGAGTATTACGGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATGCCAAGTCCGGCCCTATTGACGTCAATGACGGTAAATGG  
CCCGCTGGCATTATGCCAGTACATGACCTTACGGGACTTCTACTTGGCAGTACATCTACGTATTAGTCATCGTATTACCATGGTATGCGGT  
TTTGCAGTACACCAATGGCGTGGTAGCGGTTGACTCACGGGATTCAGTCAACTGCCACCCATTGACGTCATAAGGAGTTGTTGGCACCA  
AAATCAACGGACTTCAAAATGTCATAACCCCGCCCGTTGACGCAAATGGCGGTAGGGCTGTACGGTGGGAGGTCTATATAAGCAGAGCT  
CGTTAGTGAACCGTCAAGTCGCTGGAGACCCATCCACGCTTTTGACCTCATAGAAGACACCGGGACCGATCCAGCCTCCGGGGAAAC  
GGTGCATTGGAACCGGATTCCCCGTGCCAAGGTGACGTAAGTACCGCTATAAGCTCTATAGGCACACCCCTTGGCTTATGCACTGCTATACT  
GTTTTGGCTGGGGCTATACACCCCGCTCCTTATGCTATAAGGTGATGGTATAGCTTAGGCTATAGGTGTTGGGTTATTGACCATTATGACCAC  
TCCCTATGGTACGATACCTTCAATTACTAATCATAACATGGCTCTTGCCACAACATCTCTATTGGCTATATGCCAATACTCTGCTCTCAG  
AGACTGACACGGACTCTGATTTCACAGGATGGTCCATTATTACAAATTACATATAACAACAGCCGTCCCCGGTCCCCGAGTTT  
TATTAACATAGCGTGGATCTCACCGCAATCGGGTACGTGTTCCGGACATGGCTCTCCGGTAGGGCGAGCTTCCACATCCGAGCC  
GGTCCCCTGCTCCAGGGCTATGGCGCTCGCAGCTTGTCTAACAGTGGAGGCCAGACTTAGGCACAGCACAAATGCCACCAACACCAG  
TGTGCCGACAAGGGCGTGGCGTAGGGTATGTCAGGAAATGAGCTCGAGGATTGGGCTGCACCGCTGACGAGTGGAAAGACTTAAGGCAGCG  
GCAGAAAGAGATGCAGGAGCTGACTGTTGATTCTGATAAGAGTCAAGGTAACCTCCGTGCGGTCTGTTAACGGTGGAGGGCAGTGTAGTCT  
GAGCAGTACTCGTGTGCTGCCGCCAGCACAGACATAATAGCTGACAGACTAACAGACTGTTCTTCCATGGCTTTCTGCAGTCACCGTCg  
tcgacgcaccatggccagacaagagaatcaagagaactcgccactctgacgttcatcaagatctgtgaagcgcggccgtgaa  
tgtgagcacaagaacctgtacagctgttccagatcatcgacgttctgcccctggccccgagcaggccaccctggacactgaaaggactggaa  
cgcatcgccaaggagctgaagcaggccggcccaagggaacatcatccccctgaccgttgaaacgactggccatcatcaaggccctggagc  
ccttccagaccgaggagcacgctgagcgtgagcgcacccccccggcagctgatcatcgactgcaacgagaacacccgcaagaagcgc  
gaccgaggccctgcaactcgagtagtggccgagccctgatggcccagaccccaacgtggactacaaccagctgacggagggtatcccc  
gagaccctgaagctggaggcaagggcccgagctgttgggccctggacggcaagcccgccgaccagccccctggccggccaggctggcc  
tgaccctgacgccccagaagcaggtaaggagaacagccagccccctggctaccagtactggccccccggagctgacgttccggcccc  
ccccgagccagtagccgtacccggcatgcccccccccagggccggcccccttacccccccagccccccggccctgaaacccaccgg  
ccccccagcccccaggcagcaagctgcacgagatcatcgacaagagcccaaggaggccgacaccggccctggtccctgaccctggagc  
ccatgccccccggcgaggcccccaggagggcgacccccccaccgtggagccctgatccatcgactgacgatcaaggactgacatcg  
ggcgtgaagcagtagccgtacccggccatcgccacccctgacgatcgccccccggccctgatccccctacgactggagatc  
ctggccaaagcagccgtgagccctgacgatccatcgactgatggggatcgacggcgtgcaggagcaggctgacggcccaacccggcc  
accccccgtgaacatcgacgcccggccatcgactgatggggatcgacggccatcgccacgaggccctgatcgacgatcg  
cgaggctgacggccatcgctgacggccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcg  
ccctaccccgacttgcggccgctgacggccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcg  
agaacgcacaaccccgagtgccagagccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcg  
cgccatcgccggccatcgacggccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcg  
tacaactcgccggccatcgactgatggggatcgacggccatcgactgatggggatcgacggccatcgccacccctgatcgactg  
ccgacccctgaccccgctgacggccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcg  
gcccggccagcccgagccccccagccggccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcg  
gtgttccaggcatcgccatcgactgatggggatcgacggccatcgccacccctgatcgactgatggggatcgacggccatcg  
TAGAAAGCCATGGATATCGGACTACGCGTTAGGCTCGCTGATCAGCCTGACTGTGCTTCTAGTTGCCAGCCATCTGTTGGCCCTCC  
CCCGCTCTCTTGAACCTGGAAAGGTGCACTCCACTGTCCTTCTAATAAAATGAGGAAATGCATGCAATTGTCATGAGTAGGTGCTATTCTA  
TTCTGGGGGGTGGGTGGGCAAGCACCAAGGGGAGGATTGGAAGACAATAGCAGGGGGTGGCGAAGAACTCCACGATGAGATCCCGCGCT  
GGAGGATCATCCAGCCGGCTCCGGAAACGATCCGAAGCCAACCTTCTAGAAGGCCGGTGGAAATCAGAAATCTGTGATGGCAGGTTGGG  
CGTCGCTGGTGGCTATTGAAACCCAGAGTCCCGCTCAGAAGAACTCGTCAGAAGGCCGATAGAAGGCCGATGCGCTGCAATCGGGAGCGCGA  
TACCGTAAAGCACGAGGAAGCGGTCAAGCCCATTGCCCAAGCTCTTCAAGCAATATCAGGGTAGGCCAACGCTATGTCCTGATAGCGGTCGCCAC  
ACCCAGCCGGCCACAGTCGATGAATCCAGAAAAGCGCCATTTCACCATGATATTGCCAACGAGCCATGGTCACGACGAGATCCCTCG  
CCGCGGGCATGCCGCCCTTGAGCTGGCAACAGATTCGCTGGCGAGCCCTGATGCTCTCGTCCAGATCATCTGTGATGCCAGACAGCCGCTT  
CCATCCGAGTACGTCGCTCGATGCGATGTTGCTTGGTGGTGAATGGCAGGTAGCCGGATCAAGCGTATGCAAGCCGCCATTGATCAGC

14/25

CATGATGGATACTTCTCGGAGGAGAACGGTGAGATGACAGGGAGATCTGCCGCACCGCCAACTCGCCCAATAGCAGCCAGTCCCTCCGCTTCAGTG  
ACAACGTCGAGCACAGTCGCAGGAAACGCCGCTGGCCAGGCCAGATAGCCGCTGCCTCGAGTTATTAGGGCACCGGACAGGT  
CGGTCTTGACAAAAAGAACCGGGCGCCCTGCGTGAACAGCGGAACACGGCGCATCAGAGCAGCCGATTGTCTGTGCCCCAGTCAGCCGAA  
TAGCCTCTCCACCCAAGCGGCCGGAGAACCTGCGTGAATCCATTTGTCATCGAAACGATCCTCATCTGTCTTGTGATCAGATCTTGAT  
CCCCCTGCGGCATCAGATCTGGCGGAAGAAAGCATTCCAGTTACTTGCAGGGCTCCAAACCTTACAGAGGGGCCAGCTGGCAATTCCG  
GTTGCGCTTGCTGTCCATAAAACGCCAGTCTAGCTATGCCATGTAAGCCCAGTCAAGCTACCTGCTTCTCTTGCGCTTGCGTTCCCTGT  
CCAGATAGCCCAGTAGCTGACATTATGCCGGGTCAAGCACCGTTCTGCGGACTGGCTTCTACGTGTTCCGCTTCTTAGCAGCCCTGCGCCCT  
GAGTGTGCGGAGCGTGAAGCTAATTATGGTTAAATTTGTTAAATCAGCTATTTTAACCAATAGGCCAACATCGGCAAATCCCTTATA  
AATCAAAAAGAATAGCCCCAGATAGGGTGAGTGTGTTCCAGTTGGAAACAAGAGTCCACTATTAAGAACGTGGAACCTCAACGTCAAAGGGCAAA  
AACCGTCTATCAGGGCGATGGCCGGATCAGCTTATGCGGTGTGAAATACCGCACAGATGCGTAAGGAGAAAATACCGCATCAGGCGCTTCCGCTT  
CCTCGCTCACTGACTCGTGCCTCGTGTGCGTGGCTGCGCAGCGGTATCAGCTCACTCAAGGCCGTAATACGTTATCCACAGAACAGGGGA  
TAACGCAGGAAAGAACATGTGAGCAGGAAAGGCCAGGAAACCGTAAAGGCCGCGTTGCTGGCGTTTCCATAGGCTCGCCCCCT  
GACGAGCATCACAAAATCAGCCTCAACTCAGAGGTGGCAACCCGACAGGACTATTAAGAACGCGTTCCCGTGGAGCTCCCTCGTGC  
GCTCTCTGTTCCGACCTGCGCTTACCGGATACCTGTCGCCCTTCTCCCTCGGAAGCGTGGCGTTCTCATAGCTCACGCTGTAGGTATCT  
CAGTTGGTGTAGGCTGTTGCTCCAAGCTGGCTGTGTCAGAACCCCCCGTTAGCCGACCGCTGCCCTTACCGTAACATCTGTTGAG  
TCCAACCCGTAAGACACGACTTATGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTACAGAGTTCTTG  
AGTGGTGGCTAATCAGGCTACACTAGAAGGACAGTATTGGTATCTCGCCTGCTGAAGCCAGTTACCTCGGAAAAAAGAGTTGGTAGCTTGT  
ATCCGGCAACAAACCACCGCTGGTAGCGTGGTTTTTGTGCAAGCAGCAGATTACCGCAGAAAAAAAGGATCTAAGAAGATCTTGTGATC  
TTTCTACTGAACGGTGATCCCCACCGGAATTGCG

SEQ ID 55

CCCGCGGAATTCTGACTCTAGGCCATTGCATACGTGTATCTATATCATAATATGTACATTATGGCTCATGTCATGCAATATGACGCCATGTTGA  
CATTGATTATTGACTAGTTTAAATAGTAATCAATTACGGGGTCAATTAGTCATAGCCCATATATGGAGTCCCGTACATAACTTACGGTAAATG  
GCCGCCTGGTGACGCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTCCTAGTAAACGCCAATAGGGACTTCCATTGACGTCA  
ATGGTGGAGTATTACCGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATGCAAGTCCGGCCCTATTGACGTCAATGACGGTAAATGG  
CCGCCTGGCATTATGCCAGTACATGACCTACGGGATTTCCTACTTGGCAGTACATCTACGTATTAGTCATGCCATTACCATGGTATGCCGGT  
TTGGCAGTACACCAATGGCGTGGATAGCGTTGACTCACGGGATTCCAAGTCTCCACCCATTGACGTCAATGGGAGTTGTTGGCACC  
AAATCAACGGACTTCCAAATGCGTAATAACCCGCCCGTTGACCAAATGGCGTAGGCGTAGCGTACCGTGGGAGGTCTATATAAGCAGAGCT  
CGTTAGTGAACCGTCAAGATGCCCTGGAGACGCCATCCACGCTGTTGACCTCATAGAAGACACCGGACCGATCCAGCCTCCGGCCGGAAAC  
GGTCATTGGAACCGGATTCCCCTGCAAGAGTACGTAAGTACCGCTATAGCTTACGGCAGTACCCCTTGCTTATGCTATGCTATACT  
GTTGGCTGGGCTTGGGCTTACACCCCGCTTCTATGCTATAGGTGATGGTATAGCTTACGGCTATAGGTGTTGGTATTGACCAATTATTGACAC  
TCCCCATTGGTACGATACTTCCATTACTAATCATAACATGGCTTGCACAACTATCTTATGGTATAGCAAAACTCTGCTTTCAG  
AGACTGACACGGACTGTATTTCACAGGATGGGCTCCATTATTACAAATTACATATAACACAGCCGTCGGCGAGCTTT  
TATTAACATAGCGTGGGATCTCACCGCAATCTCGGGTACGTTCCGGACATGGCTCTCCGGTAGCGCGGAGCTTCCACATCCGAGCCCT  
GGTCCCAGCCTCCAGGGCTCATGGCGCTGGCAGCTCTGGCTCTAACAGTGGAGGCCAGACTTACGGCACAGCACATGCCACCCACCA  
TGTGGCGACAAGGCCGTGGCGTAGGGTATGTCGAAATGAGCTGGAGATTGGCTCGCACCGTGACGAGATGAAAGACTTAAGGAGCG  
GCAGAAGAAGATGCAAGCAGCTGAGTGTGATTCTGATAAGACTCAGAGTAACCTCCGTGGGTCTTTAAGCTGGAGGGAGTGTAGTCT  
GAGCAGTACTCGTGTGCTGCCGCCACCAGACATAATAGCTGACAGACTAACAGACTGTTCTTCCATGGCTTTCTGAGTCACCGTCg  
tcacgcaccatgtggccaccatgtggcaagcgccaaaggcccccccgccagccccccaccacaactgggatccccacagcgccatctg  
cagcagcgctcagcgaccaccacccaccgtgcccagctgagcggcaacaagccgtgacccatccagcagtgagcccccccgccacc  
ggcagcgcgcgcgtggacccatgtgcaccatccaggccgtgacccatccaggccgtgacccatccaggccgtgacccatccaggcc  
ccaaggccaccgtggcctgatctggcccgacccatccggccgtgacccatccaggccgtgacccatccaggccgtgacccatccagg  
gatcccgatgtgtatcagcagcatccctggagcgcaccccgccgaccgcattccggccgtgacccatccaggccgtgacccatccagg  
agcgagatcaagcgcatccggccgtggcaccgcacccaccccgcaaggccgtactggccaccggccgtgacccatccaggcc  
aggccatcatccaggccgtggcaccgcacccaccccgcaaggccgtactggccaccggccgtgacccatccaggcc  
gcagaaggccgtgaccggcctggcattggcaccgcaccccgccgtggcaccggccgtgacccatccaggccgtgacccatccagg  
agcccgatgtgtatcaccagcatccctggcaccgcaccccgccgtggcaccggccgtgacccatccaggccgtgacccatccagg  
gctacccaccagccagaagatcatgacccatccggccgtggcaccgcacccaccccgcaaggccgtactggccaccggccgtgac  
ggccaaatcaaccaggcgcggccatggcaaccctcgcttaagaattcAGACTCAGCAAGTCAAGTCAAGGCAATGGATATCGGATCC  
TACCGCTTAGAGCTCGCTGATCAGCTCGACTGTGCCCTTCTAGTGTGCTGGCCAGCATCTGTTGCCCCCTCCCCGTGCTTCCCTGAC  
TGCCACTCCACTGTCTTCTAATAAAATGAGGAAATTGACATGCAATTGCTGAGTAGGTGTCATTCTATTCTGGGGGTGGGGTGGGAG  
AGCAAGGGGAGGATTGGAAGACAATAGCAGGGGTGGCGAAGAACTCCAGCATGAGATCCCGCCTGGAGGATCATCCAGCCGGTCCCG  
AAAAGATCCGAAGCCAACCTTCATAGAAGGGCGGTGGAATCGAAATCTCGTGTGGCAGGTTGGCGTCCTGGTCGGTCATTGCAACC  
CCAGAGTCCGCTCAGAAGAACTCGTCAAGAAGGGATAGAAGGGATGCGCTGCGAATCGGAGCGCGATACCGTAAGCAGGAAAGCGGTCA  
GCCCATCCGCCAACGCTCTCAGCAATATCAGGGTAGCCAAAGCTATGCTCTGATAGCGTCCGCCACACCCAGCCGCCACAGTCGATGAATC  
CAGAAAAGCGCCATTTCACCATGATATTGCCAAGCAGGCGATGCCATGGTCACGAGAGATCTCGCCGTCGGCATGCGCCTTGGCG  
GGCGAACAGTCTGGCTGGCGAGCCCTGATGCTTCGTCAGATCATCTGACAAAGACCGGCTTCCATCCGAGTACGTGCTCGTCGATG  
CGATGTTCTGGCTGGCGAATGGCGAGGTAGCCGATCAAGCGTATGCAAGCCGCGCATGCACTGACCGGAGATGATGGAACTTCTCGCAGGAG  
CAAGGTGAGATGACAGGAGATCCTGCCCGCACTCGCCCAATAGCAGCCAGTCCCTCCCGTTCAGTGACAAACGTGGAGCACAGCTGCGCAAGG

AACGCCCGTCTGGCCAGCCACGATAGCCGCGTCCTCGTCAGTTATCAGGGCACCGGACAGTCGGTCTTGACAAAAAGAACCGGGCGC  
CCCTGCGCTGACAGCCGAACACGGCGGCATCAGAGCAGCCGATTGCTGTGCCCCAGTCATAGCCGAATAGCCTCTCCACCCAAGCGGCCGGAG  
AACTGCGTGAATCCATCTGTTCAATCATGCGAACAGATCCTCATCCTGTCCTTGATCAGATCTTGATCCCCTGCGGCATCAGATCTTGGCGG  
CAAGAAAGGCATCCAGTTACTTTCGAGGGCTCCAACCTTACAGAGGGCGCCCGAGTGGCAATTCCGGTCTGCTGTCATAAAACCGCC  
CAGTCTAGCTATGCCATGTAAGCCCAGTGCAAGCTACCTGCTTCTCTTGCCTTGCGTTTCCCTGTCCAGATAGCCAGTAGCTGACATTCA  
TCCGGGGTCACTGGCTTCTGCGGACTGGCTTCTACGTGTTCCGCTCCCTTAGCAGCCCTTGCGCCCTGAGTGTGCGGAGCGTGAAGCTAA  
TTCATGGTTAAATTTGTTAAATCAGCTCATTTAACCAATAGGCCGAATCGGAAATCCCTTAAATCAAAGAATAGCCCCAGATAGGG  
TTGAGTGTGTTCCAGTTGGAACAGAGTCCACTATTAAAGAACGTTGACTCCAACGTCAAAGGGCGAAAACCGTCTCATGGCGATGGCCGG  
TCAGCTTATGCCGCTGTAAGAACAGTACCGCAGTCAGGAGAAAATACCGCATCAGGCCTCTCGCTTCTCCGCTCATGACTCGCTGCGCTCG  
GTCGTTCCGCTGCCGAGCGGTATCAGCTACTCAAAGGCGTAATACGGTTATCCACAGATAGGGATAACGCGAGAAAGAACATGTGAGCAA  
AAGGCCAGAAAAGGCCAGGAACCGTAAAAGGCCGCTTGTGGCTTCCATAGGCTCGCCCTGACGAGCATCACAAAATCGACGCTC  
AACTGAGGGTGGCGAACCCGACAGGACTATAAGATACCAGGGCTTCCCTGGAAGCTCTGTCGCTCTCCGTTCCGACCCCTGCCGCTT  
ACCGGATAACCTGTCGCCCTTCCCTCGGAAAGCGTGGCCTTCTCATAGCTCACGCTGAGGTATCTCAGTCGGTCTAGGTCTGCTCC  
AGCTGGGCTGTGTCAGAACCCCCCGTTCAAGCCGACCGCTGCCCTATCCGTAACTATGTCCTTGAGTCCAAACCCGTAAGACACGACTATC  
GCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAAGGGCTGCTACAGAGTCTGAGTGGTGGCTAACTACCGCTACACT  
AGAAGGACAGTATTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTCGGAAAAGAGTTGGTAGCTTGTGATCCGGAAACAAACCACCGCTGGTA  
GCCGGTGGTTTTTTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGATCTCAAGAAGATCCTTGTACTGAACGGTATCCCCCACC  
GGAATTGCG

SEQ ID 56

GGCCGCGGAATTCTGACTCTAGGCCATTGCATACGTGTATCTATCATATAATGTACATTATGGCTCATGTCCAATATGACC GGCAATGGTGA  
CATTGATTATTGACTAGTTATTAAATAGTAATCAATTACGGGGTCATTAGTCATAGCCCATAATGGAGTTC CGC GTTACATAACTACCGTAAATG  
GCCCGCCTGGCTGACCGCCCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCATAGTAACGCCAATAGGGACTTCCATTGACGTCA  
ATGGGTGGAGTATTACCGTAAACTGCCACTTGGCAGTACATCAAGTGATCATATGCCAAGTCCGCCCTATTGACCTCAATGACGGTAAATGG  
CCCCCCTGGCATTATGCCACTACATGACCTTACGGGACTTCTACTTGGCAGTACATCTACGTATTACTCATCGCTATTACCATGGTATGCCGGT  
TTTGGCAGTACACCAATGGCGTGGATAGCGTTGACTCACGGGATTCCAAGTCTCCACCCATTGACGTCAATGGAGTTGTTGGCACCA  
AAATCAACGGGACTTCCAAAATGCGTAATAACCCGCCCGTGACGCAAATGGCGTAGCGTGTACGGTGGGAGGTATATAACAGAGCT  
CGTTAGTGAACCGTCAGATGCCCTGGAGACGCCATCCACGTGTTTGACCTCATAGAACGACACC GGACCGATCCAGCTCCCGGCCGGAAAC  
GGTGCATTGGAACCGGATTCCCCTGCCAAGAGTACGTAAGTACCGCTATAGACTCTATAGGCACACCCCTTGGCTTATGCATGTACT  
GTTTGGCTGGGCTTACACCCCGCTTCTTATGCTATAGGTGATGGTATAGCTTAGGCTATAGGTGTTGTTATTGACCAATTATTGACCA  
TCCCTATTGGTACGATACTTCCATTACTAATCCATAACATGGCTCTTGCCACAACATCTTATGGCTATATGCCAATACTCTGCTTTCAG  
AGACTGACACGGACTCTGATTTCACAGGATGGGCTCCATTATTACAAATTACATATAACACAGCCGTCCCCCTGCCCCAGTTT  
TATTAACATAGCGTGGGATCTCCACCGCAATCTGGTACGTCTCCGGACATGGGCTTCTCCGGTAGCGCGGAGCTCCACATCGAGCCCT  
GGTCCCATGCCCTCAGCGCTCATGGCGCTCGCAGCTCTGGCTCTAACAGTGGAGGCCAGACTTAGGCACAGCACAATGCCAACACCACAG  
TGTGCCGACAAGGGCTGGCGTAGGGTATGTTGCTGAAATGAGCTCGGAGATTGGGCTGCACCGCTACGGAGATGGAAGACTTAAGGAGGG  
CCAGAAGAAGATGCCAGCGCAGCTGAGTTGATTCTGATAAGAGTCAAGGTAACCTCCCTGCCGCTCTTAACGGTGGAGGGCAGTGTAGTCT  
GAGCAGTACTCGTGTGCCGCCGCCAGACATAATAGCTGACAGACTAACAGACTGTTCTTCCATGGGCTTTCTGCACTGCCGTC  
tcgacgccaccatgaacaagagccgaagccgcgaaccgcggagactgtggcccccgtggagcccccaagccatccccctgacctg  
gaagaccgagaagccctgtgggtgaaccagtggccctgccaagcagaagctggaggccctgcacctgtggccaaagcagcagctggagaagggc  
cacatcgagcccgatccatcgccccctgaaacagccctgttgcgtatccagaagaagcgcgcgaactggccatgtgcacccactgcgcgcgtga  
acgcgtgatccatcgccccatggcccccgtcagcccgccgtcccgcccatgtccccaaaggactggccctgatcatcatcgacactgaagga  
ctgcttctcaccatccccctggccgagcaggactgcgagaagttcgccttcaccatccccccatcaacaacaaggagccgcaccggcttccag  
tggaaagggtgtccccaggcatgctgaacagccccccatctggccagacccctgtggcccgccctgcagccctgtcgcgagaagttcagcact  
gtacatcatccactgcatcgacgacatctgtgcggcccgagaccaggactgtatcgactgtaccccttcctgcaggccgagggtggccaa  
cgccggctggccatccgcageacaagatccagaccaggccatccactacccctgcagatcgactgtatccatcgaggccatccatggcc  
atcgagatccgcaggacaccctgaagaccctgtacgcacttcaccaactgtgtggcgcacatcaactggatccgcaccctggcatccccact  
acgcattgagcaacccctgttgcacatctgcgcggcagcgcacccctgtacccatggccatccatggccaggccatccatggcc  
ggaggagaagatcccgaggcccgatcaacccgcacccctggccatgcagatcgactgtatccatcgaggccatccatggcc  
atcatccagaacccgcacctgtggagttcgccttcaccatccccccatggccatccatggccatccatggccatccatggcc  
cccgacccgcctgcgcacatcaactgtgtggccacccgcacccatggccatccatggccatccatggccatccatggcc  
caggccgcctggaaagatcgccctggcaacttgcggcatcatcgaccaaccactaccccaagaccaggacttccatctgcagg  
tggatccatccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggcc  
ccaaggagccgtatcaagacccttaccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggcc  
catcatcgacccgcctacgtgtgcaggccaccgcacccatggccatccatggccatccatggccatccatggccatccatggcc  
aacctgtcgacccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggcc  
acgacccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggcc  
cgacgtacccatggaaagccaggacatcgacccatccatggccatccatggccatccatggccatccatggccatccatggcc  
ggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggcc  
acttcatctggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggccatccatggcc

caagaccgacaacggccccggctactgcagcaaggcctccagaagtctgagccagtggaaagatcagccacaccaccggcatccctacaacagc  
 cagggccaggccatcgtagcgccaccaaccgcaccctgaagaccccagctgttgaaagcagaaggaggcgccgacagcaaggagtgcaccacccccc  
 agatcagctgaacctggccctgtacaccctgaaccttgcataccatctaccgcacccagaccaccacccagcggcggcggcggcggcggcggc  
 gaacagcccccacggggcaagctgtatctggtaaggacaacaagaacagacccctggagatcgccaaagggtgttttttttttttttttttttttttt  
 tgcgtgagccccggcgagaaccagctgcccgtgttgatcccccccccgcaccctgaagttctacaacagcggccatccgcacgcggcacaaggac  
 gcggccgagaccggc  
 gggccgcggccaaaccttggcaccaccaaggaggccgacgcggcgtgagctacaagatcagccgcggcggcggcggcggcggcggcggcggc  
 gccgcctgcggc  
 GAAAGCCATGGATATCGGATCCACTACCGGTTAGAGCTCGTGATCAGCTCGACTGTGCCCTTCTAGTGCCAGGCATCTGTTGCCCCCTCCCC  
 CGTGCCTTCCTGACCTGGAAAGGTGCCACTCCACTGTCTTCTAATAAAATGAGGAATTGCATCGCATTGCTGTAGTAGGTGTCATTCTATT  
 CTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGAAAGACAATAGCAGGGGGTGGGCAAGAACCTCAGCATGAGATCCCCGGCTGG  
 AGGATCATCCAGCCGGCTCCGGAAAACGATTCCGAAGCCAACCTTCTAGAGAAGGGCGGTTGGAATCGAAATCTCGTGTGGCAGGTTGGCG  
 TCGCTTGGTCGGTATTCGAACCCCCAGAGTCCCCTCAGAAGAACTCGTCAAGAAGGGATAGAAGGCATAGCAGCGATGCCCTGCAGGGAGCGATA  
 CCGTAAAGCACGAGGAAGCGGTAGCCCATTGCCGCAAGCTCTCAGAAATATCAGGGTAGCAGACGGCTATGCTGTAGCGGTCCGCCACAC  
 CCAGCCGCCACAGTCGATGAATCCAGAAAAGCGCCATTTCACCATGATATTCCGAAGCAGGATCGCCATGGTCACGACGAGATCCTCGCC  
 GTCGGGCATGCCGCGCTTGCACGGCTGGCAACAGTCGGCTGGCGAGCCCTGATGCTCTCGTCCAGATCATCTGATCGACAAGACGGCTTCC  
 ATCCGAGTACGTGCTCGATGCGATTTGCTGGTGAATGGCAGGTAGCGGATCAAGCGTATGAGCCGCGCATTGCATCAGCA  
 TGATGGATACTTCTCGCAGGAGCAAGGTGAGATGACAGGAGATCTGCCCCGGCACTTCGCCCCAAATAGCAGCCAGTCCCTTCCGCTTCAGTGC  
 AACGTCGAGCACAGCTGCAGGAACGCCGCTGTGGCCAGCAGTACAGCCGCTGCTCGTCAAGCTTCTCAGGGCACCGGACAGGTG  
 GCTTGCAGAAAAGAACCGGGCGCCCTGCACGACAGCCGAGCAGGGCATCAGCAGCCGATTGTCAGGGTGTGCCCCAGTCAGCCAGATA  
 GCCCTCTCACCAGCGCCGGAGAACCTGCGTCAATCCATCTGTCATCATGCGAACAGCTCTCATCTGCTCTTGTGATCAGATCTGATCC  
 CCTGCGCATCAGATCCTGGCGCAAGAAAGCCATCCAGTTACTTGCAAGGGCTTCCAACTTACAGAGGGCGCCAGCTGGCAATTCCGT  
 TCGCTTGTGTCCTAAACCGCCAGTCAGCTATGCCATGTAAGCCACTGCAAGCTACCTGCTTCTCTTGTGCTTCCGTTGCGTTTCCCTGTCC  
 AGATAGCCAGTAGCTGACATTCATCGGGGTGACGCCGTTCTGCGGACTGGTTCTACGTGTTCCGTTCCCTAGCAGCCCTGCGCCCTGA  
 GTGCTTGGCGAGCGTGAAGCTAATTCTAGGTTAAATTGTTGAAATCAGCTCATTTTAAACCAATAGGCCGAAATCGGAAATCCCTTATAAA  
 TCAAAAGAATAGCCCGAGATAGGGTGAGTTGTTGAGCTTGGAAACAAGAGTCCACTATAAAAGAACGTGGACTCCAACGTCAAAGGGGAAAAA  
 CCGCTATCAGGGCGATGGCCGGATCAGCTTATGCGGTGAAATACCGCACAGATCGTAAGGAGAAAATACCGCATCAGGGCTTCCGCTTCC  
 TCGCTACTGACTCGTGCCTCGGCTGTTGCGTGCAGGGTATCAGCTACTAAAGGGTAATACGTTATCCACAGAACGGGATA  
 ACGCAGGAAAGAACATGTGAGCAAAGGCAGCAAAGGCCAGGAACCGTAAAAGGCCGTTGCTGGCTTCCATAGGCTCCGCCCTGA  
 CGAGCATCACAAAATCGACGCTCAAGTCAGGGTGGCAGACAGGACTATAAGATACCAGCGTTCCCTGGAAAGCTCCCTGTGCGC  
 TCCCTGTTCCGACCCCTGCCCTTACCGGATACCTGTCGCCCTTCTCCCTGGGAAAGCGTGGCCTTCTCATAGCTCACGCTGTAGGTATCTCA  
 GTCGGTGTAGTCGTCCTCAAGCTGGCTGTGTCACGAACCCCCGGTTCAGCCGACCGCTGCGCTTATCCGTAACTATGTCCTGAGTC  
 CAACCCGTAAGACACGACTATGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGAGCGGTGCTACAGAGTTGAG  
 TGGTGGCTAACTACGGCTACACTAGAAGGACAGTATTGGTATCTGCGCTGTGCAAGCCAGTTACCTCGGAAAAGAGTTGGTAGCTCTGAT  
 CGGCAACAAACACCAGCGCTGGTAGCGGTTTTTTGTTGCAAGCAGCAGATTACGCGCAGAAAAAGGATCTAAGAAGATCCTTGTGATCTT  
 TTACTGAACGGTGATCCCCACCGGAATTGCG

**SEQ ID 57**

ATGAACCCATCAGAGATGCAAAGAAAAGCACCTCCGCGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAACAAAATGGTGACGT  
 CAGAAGAACAGATGAATTGCCATCCACCAAGAACGGCAGAGCCCAACTTGGGCAACAATAAGAACGCTGACGAGTTAGCTACAAAATATCTAGA  
 GAACACAAAGGTGACACAAACCCAGAGAGATGCTGCTTGAGCCTTGATGATTGATCAATGGTGCTGAGGTGACCCAAAGCTCCGAAGAG  
 ACAGCGACCATCGAGAACGGCCATGA

**SEQ ID 58**

ATGAACCCAGCGAGATGCGCAAGGGCCCCCCCCGGCCGCCGCCACCGCAACCGGCCCTGACCCACAAGATGAACAAAGATGGTGACCA  
 GCGAGGAGCAGATGAAGCTGCCAGCACCAAGAACGGCAGGCCCCACCTGGGCCAGCTGAAGAACGCTGACCCAGCTGGCCACCAAGTACCTGGA  
 GAACACAAAGGTGACACCCAGAGAGCATGCTGCTGGCCGCCCTGATGATCGTAGCAGGATGGTGAAGCGCCGGCTGCCCCAACAGCAGCGAGGAG  
 ACCGCCACCATCGAGAACGGCCCCGTTAA

**SEQ ID 59**

ATGAACCCATCGGAGATGCAAAGAAAAGCACCTCCGCGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAACAAAATGGTGACGT  
 CAGAAGAACAGATGAATTGCCATCCACCAAGAACGGCAGAGCCCAACTTGGGCAACAATAAGAACGCTGACGAGTTAGCTACAAAATATCTAGA  
 GAACACAAAGGTGACACAAACCCAGAGAGATGCTGCTTGAGCCTTGATGATTGATCAATGGTGCTGACCCACAAGCTCCGAAGAGACAGCGA  
 CCATCGAGAACGGCCATGATGACGATGGGGTTTGTCGAAAAGAAAAGGGGAAATGTGGGAAAAGCAAGAGAGATCAGATTGTTACTGTC  
 GTGAGAAGAGTAGACATAGGAGACTCCATTGTTCTGTACTAA

**SEQ ID 60**

ATGAACCCAGCGAGATGCGCAAGGGCCCCCCCCGGCCGCCGCCACCGCAACCGGCCCTGACCCACAAGATGAACAAAGATGGTGACCA  
 GCGAGGAGCAGATGAACCTGCCAGCACCAAGAACGGCAGGCCCCACCTGGGCCAGCTGAAGAACGCTGACCCAGCTGGCCACCAAGTACCTGGA  
 GAACACCAAGGTGACCCAGACCCCCGAGAGCATGCTGCTGGCCGCCCTGATGATCGTAGCAGGATGGTGAAGCGCCGGCTGCCCCAACAGCAGCGAGGAG

CCCAGCCGCACCGGCCACGACGACGGCGCTTCGTGGAGAAGAAGCGCGCAAGTGCAGGAGAAGCAGGAGCGCAGCGACTGCTACTGCGTGT  
GGTGGAGCGCAGCGCCACCGCCGCTGCACCTCGTGTACGCTAA

**SEQ ID 61**

ATGGGGCAAACATAAAAGTAAATATGCCTTATCTCAGCTTATTAAAATTCTTTAAAAAGAGGGGGAGTTAAAGTATCTACAA  
AAAATCTAATCAAGCTATTCAATAATAGAACAAATTTGCCATGGTTCCAGAACAGAACCTTACAGTAAAGATCTAAAAGATTGGAAAAGAATTGGTAA  
GGAACATAAAACAAGCAGGTAGGAAGGGTAATATCATCCACTACAGTATGGATGGGCAATTATTAAGCAGCTTAAAGACCATTCTAACAA  
GAAGAAGATAGCGTTCACTTCTGTATGCCCTGGAAGCTGTATAATAGATTGTATGAAAACACAAGGAAAAAATCCAGAAAGAAACCGAAGGTT  
TACATTGCAATATGTAGCAGAGCCGTAATGGCTCAGTCACCGAACATGTTACTATACTACAGGAGGTGATATATCCTGAAACGTTAA  
ATTAGAAGGAAAAGGTCCAGAATTAGTGGGCCATCAGAGTCTAAACCCACGGAGGCAACAGTCCTCCAGCAGGTGAGGTGCTGTAAACATTACAA  
CCTCAAAAGCAGGTTAAAGAAAATAAGACCCAACCGCCAGTAGCCATCAACTTGCCCTCCGCTGAACTTCAGTATCGGCCACCCCCAGAAAGTC  
AGTATGGATATCCAGGAATGCCCAACAGGGCAGGGCGCATACCCCTAGCCGCCCCACTAGGAGACTTAATCTACGGCACACCTAGTAG  
ACAGGGTAGTAAATTACATGAAATTATTGATAAAATCAAGAAAGGAAGGGAGATACTGAGGCATGGCAATTCCAGTAACGTTAGAACCGATGCCACCT  
GGAGAAGGAGGCCAACAGAGGGAGAGCCTCCACAGTGGGCCAGATAACAGTCCTTCGATAAAAAGCTAAAAGATGAAAGAGGGAGTAAAC  
ACTATGGACCAACTCCCTTATATGAGGACATTATTAGATTCCATTGCTCATGGACATAGACTCATTCTTATGATTGGAGATTCTGGAAAATC  
GTCTCTCACTCTCAATTTCACATTAAAGACTTGGGATTGATGGGATCAAGAACAGGTCGAGAAAATAGGGCTGCCAATCTCCAGTT  
AACATAGATGCAATCAACTATTAGGAATAGGTCAAATTGGAGTACTATTAGTCACAAAGCATTATGCAAATGAGGCCATTGAGCAAGTTAGAG  
CTATCTGCCCTAGAGCCTGGGAAAATCCAAGACCCAGGAAGTACCTGCCCTCATTAATACAGTAAGACAAGGTTCAAAGAGGCCCTATCTGA  
TTTGTGGCAAGGCTCAAGATGTTGCTAAAGTCATTGCTGATGAAAAGCCGTAAGGTCATAGTGGAGTTGATGGCATATGAAAACGCCAAT  
CCTGAGTGTCAATCAGCCATTAAAGGAAAGGTTCTGCAAGGATCAGATGTAATCTCAGAAATATGTAAGAACAGGCTGTGATGGAATCGGAG  
GACCTATGCATAAAAGCTATGCTTATGGCTCAAGCAATAACAGGAGTTGTTAGGAGGACAAGTTAGAACATTGGAAGAAAATGTTATAATTGTT  
TCAAATTGGTCACTAAAAAGAATTGCCAGTCTAAATAAACAGAAATATAACTATTCAAGCAACTACAACAGGTAGAGAGGCCACCTGACTTATGT  
CCAAGATGAAAAAGGAAACATTGGCTAGTCATGTCCTCTAAATTGATAAAATGGCAACCATTGCGGAAACGAGCAAAGGGGCCAGC  
CTCAGGCCACAAACAACTGGGCATTCCAACTCAGCATTGTCCTCAGGGACAACAACCCCCACTGTCCCAGTGTTCAGGG  
AATAAGCCAGTACCAACAAATACAATTGTCCCCCGCCACAAGCGGAGTCAGCAGCTAG

**SEQ ID 62**

ATGGGCAGACCAGAGCAAGATCAAGAGCAAGTACGCCAGCTACCTGAGCTTACAGATCTGCTGAAGCGCGCGCGTGAAGGTGAGCACCA  
AGAACCTGATCAAGCTGTTCCAGATCATCGAGCAGTCTGCCCTGGTCCCGAGCAGGGCACCTGGACCTGAAGGACTGGAAGCGCATGCCAA  
GGAGCTGAAGCAGGCCGCCAACATCATCCCCCTGACCGTGTGGAACGACTGGGCATCATCAAGGCCCTGGAGCCCTCCAGACC  
GAGGAGGACAGCGTGAGCGTGAGCAGCCCCGGCAGCTGCACTCATCGACTGCAAGAACACCCGCAAGAACAGGCCAGAAGGAGACCGAGGGCC  
TGCAGTGCAGTGACGTGGCCGAGCCGTGATGGCCAGACGCCCCAGAACGACTGGGACTACAACCGAGTCAGGAGGTGATCTACCCCGAGACCTGAA  
GCTGGAGGGCAAGGGCCCGAGCTGGTGGGCCCCAGCGAGAGCAAGGCCGCGACCAGCCCCCTGCCGCGGCCAGGTGCCGTGACCCCTGCA  
CCCCAGAACGAGCTGAAGGAGAACAGACCCAGCCCCCTGCCCTACCAAGACTGCCAGCTTACCCCCCCCCCGACCTCCAGTACCCCCCCCCCAGAGCC  
AGTACGGCTACCCCGCATGCCCTGCCCTCAGGGCCGCCCCCTACCCCCCAGCCCCCAGCCCCCTGCCCTGCAACCCCCCAGCCCCCAGCC  
CCAGGGCAGCAAGCTGACAGATCATGACAAGAGCCGAAGGAGGGCAGACCCGGCTGGCAGTTCCCGTGACCCCTGGAGCCATGCC  
GGCAGGGCGCCAGGAGGGCGAGCCCCCAGCGAGAGCAAGGCCGCGACCAGCCCCCTGCCGCGGCCAGGTGCCGTGACCCCTGCA  
AGTACGGCCCCAACAGCCCCCTACATGGCACCCCTGCTGGACAGCATGCCAACCCCTGATCCCCCTACGACTGGGAGATCCTGCCAAGAG  
CAGCCCTGAGCCCCAGCCAGTTCCTGCAAGACCTGGTGGATCGACGGCGTGCAGGAGCAGGTGCCCGCAACCGCGCCAAACCCCCCAGCC  
AACATCGACGCCAACAGCTGCTGGCATGCCAGACTGGAGCACCATGAGCCAGGCCCTGATCCCCCTACGACTGGGAGATCCTGCCAAGAG  
CCATCTGCCCTGCCCTGGGAAGATCCAGGACCCCGCAGCAGCTGCCCTAGCTCAACACCGTGCAGGCCAGGAGGCCCTACCCGA  
CTTCCTGGCCCCCTGCAAGGAGCTGGCCAGAGGAGAACGAGCATGCCAGGAGAACGGCCCAAGGTGATCTGGAGCTGATGGCTACGAGAACGCCAAC  
CCCCAGTGCCAGGCCATCAAGCCCCCTGAGGCCAGGGCTGCTGGGAGGCCATACCCGGCGTGGTGTGGCCAGCTGCCGACCTGCCGAGCTGCTACA  
GCCCATGCAAGGCCACCTGCTGATGGCCAGGCCATACCCGGCGTGGTGTGGCCAGCTGCCGACCTGCCGAGCTGCCGAGCTGCTACA  
CCAGATGCCACCTGAAGAAGAACTGCCCTGCTGAACAAGCAGAACATCACCATCAGGCCACCCAGGCCGCGAGGCCCTGACCTGTC  
CCCCCTGCAAGAGGGCAAGCAAGCTGGCCAGCCAGTGGCCAGCAAGTGCAGAACAGGCCAGCCCCCTGAGGCCAGCAGGCCCTGAGGCCAGGTGTTCCAGGG  
CCCAGGCCACCTGCCAGGCCAGGCCCTTCCATCCAGCCCTGTCGCCAGGGCTTCCAGGCCAGCAGGCCCTGAGGCCAGGTGTTCCAGGG  
CATCAGCCAGTGCCTTCAACTACAACACTGCCCTCCCCCAGGCCGCGTGCAGCAGGCTAA

**SEQ ID 63**

ATGTGGCAACCATGTCGGGAAACGAGCAAAGGGCCAGCCTCAGGCCACAAACAACTGGGCATTCCAAATTCAAGCCATTGTTCTCAGGGT  
TTCAAGGACAACAACCCCCACTGCTTCAAGTGTTCAGGGATAAGCCAGTTACCAACAAATCTGCCCCGCCAACAGGGCAGTGCAGC  
AGTAGATTTATGACTATACAAGCAGTCTCTGCTTCCAGGGAGCCCCACAAAAAACCCCCACAGGGTATATGGACCCCTGCCCTAAGGGACT  
GTAGGACTAATCTGGACATCAAGTCTAAATCTAAAGGAGTTCAACTAGTGTGTTGATTCAAGACTATAAAGGCAGAAATCAATTGG  
TTATTAGCTCTCAATTCTGGAGTGCCTCAAGAGACAGGAATTGCTCAATTATTACTCTGCCATACATTAAGGGTGGAAATAGTGAATAAA  
AAGAATAGGAGGGCTTGGAGACTGATCAACAGGAAGGCTGCAATTGGGCAAGTCAGGTCTCAGAGAACAGACCTGTTGTAAGGCCATTATT  
CAAGGAAACAGTTGAAGGGTGGTAGACACTGGAGCAGATGTCCTATCATTGCTTAAATCAAGTGGCAAAAATGGCTAAACAAAGGCTG  
TTACAGGACTTGTGGCATAGGCACAGCCTCAGAACAGTACGGAGATTACATTGCTTAGGGCAGATAATCAAGAACAGTACTGTC  
GCCAATGATTACTCAATTCTCTTAATCTGGGGTGCAGGATTACACAATGGGTGCCAAATCACCAGCCGCTCCATCATAGCCCC

18/25

ACGAGTCAAAAAATCATGACCAAGATGGGATATATACCAAGGAAAGGGACTAGGGAAAATGAAGATGGCATTAAATTCCAGTTGAGGCTAAAATAA  
ATCAAGAAAGAGAAGGAATAGGAATCCTGCTAG

**SEQ ID 64**

ATGTGGGCCACCCTCGGGCAAGGCCAAGGGCCCCGCCACGGGCCACCCAACTGGGCATCCCACAGCCCATCTGCAGCAGCGCT  
TCAGCGGCCACCACCCCCACCGTGCACAGCGTGCAGCGCAACAAGCCCGTGCACCCATCCAGCAGCTGAGCCCGCCACAGCGGCAGCGCC  
CGTGGACCTGTGCACCATCCAGGCCGAGGCTGTGCCCCGGAGCCCGCCAGAAGACCCCGCCACCGCGTGTACGGCCCCCTGCCAAGGGCACC  
GTGGGCTGATCTGGGCCAGCGCTGAACCTGAAGGGCGTGCAGATCCACACCCAGCGTGGTGCAGCGACTACAAGGGCAGATCCAGCTGG  
TGATCAGCAGCAGCATCCCCTGGAGCCCCAGCCCCCGCACCCATGCCACCTGCTGTGCTGCCCTACATCAAGGGCGAACAGCGAGATCAA  
GCCATCGGGCCCTGGCAGCACCGACCCCCACCGCAAGGGCCCTACTGGCCAGCGAGGTGAGCGAGAACCGCCCGTGTGCAAGGCCATCATC  
CAGGGCAAGCAGTTCGAGGGCTGGTGCACCCGGCCAGCTGAGCATCGCCCTGAACCAAGCTGGCCAAGAAGTGGCCCAAGCAGAAGGCC  
TGACCGGGCTGGTGGCATGGCACCGCCAGCGAGGTGACCCAGAGATCTGCACTGCCCTGGCCCCGACAACCAGGAGAGCACCGTCCA  
GCCATGATCACAGCATCCCCCTGAACCTGTGGGCCGACTGTGCAAGCTGGGGCCGAGATCACCATGCCGCCAGCTACAGCCCC  
ACCAGCCAGAAGATCATGACCAAGATGGCTACATCCCCGCAAGGGCTGGCAAGAACGAGGACGGCATCAAGATCCCCGTGGAGGCCAAGATCA  
ACCAGGAGCGCAGGGCATGGCAACCCCTGGCTTAA

**SEQ ID 65**

ATGAATAATCAAGAAAGAGAAGGAATAGGAATCCTGCTAGGGCGGCCACTGTAGAGCTCTAAACCCATACCAATTACTGGAAAACAGAAA  
AACCAAGTGTGGTAAATCAGTGGCGCTACAAAACAAAATGGAGGCTTACATTATTAGCAAAATGAACAGTTAGAAAAGGGTATATTGAGCC  
TTCTCTCACCCTGGAATTCTCTGTGTTGTAATTCAAGAAGAAATCAGGCAATGGCTATGTTACTGACTTAAGGGCTGAAACGCCGTAATT  
CAACCCATGGGCCCTCTCAACCCGGTTGCCCTCCGGCATGATCCAAAAGATTGGCTTAAATTATAATTGATCTAAAGGATTGTTTTTA  
CCATCCCTCTGGCAGAGCAGGATTGCGAAAAATTGCTTAACTATACAGCCATAAATAATAAGAACAGGCCACCGAGTTCAAGTGGAAAGTGT  
ACCTCAGGAAATGCTTAAATAGTCCAATTTGTCAGACTTTGTAGGTGAGCTCTCAACCAGTTAGAGAAAAGTTTCAGACTGTTATTATT  
CATGTTATTGATGATATTGTGCTGAGAAACGAAAGATAAAATTAAATTGACTGTTACATTTGCAAGCAGAGTTGCAATGCTGGACTGG  
CAATAGCATCTGATAAGATCAAACCTCTACTCCTTTCATTATTAGGGATGCGAGATAGAAAATAGAAAATTAAGCCACAAAAATAGAAATAAG  
AAAAGACACATAAAACACTAAATGATTCTAAAATTACTAGGAGATAATTGATTGCTGGCAACTCTAGGCAATTGCTACTATGCCATGTC  
AATTGTTCTCTATCTTAAGAGGAGACTCAGACTAAATAGTAAAAGAATGTTACCCAGAGGCAACAAAAGAAATTAAATTAGTGGAAAGAAAAA  
TTCAGTCAGCAGAATAAAATAGAATAGATCCTTAGGCCACTCCAACCTTTGATTTGCACTGCACTCTCAACAGGCATCATTCTCAAA  
TACTGATCTGGAGTGGTCACTCTCTCACAGTACAGTTAACACTTTTACATTGACTTGGATCAAATAGCTACATTGCACTGGTCAAGACAAGA  
TTACGAATAATAAAATTATGTTGGAGACCCAGAAAATGTTGCTCTTAACCAAGGAACAAGTTAGACAAGCTTATCAATTCTGGTCAT  
GGAAGATTGGTCTGCTAATTGTTGTTGGAAATTATTGATAATCATTACCAAAAACAAGATCTTCACTGTTAAATTGACTACTTGGATTCTACC  
TAAAATTACAGACGTGAACCTTGTGAGAAATGCTTAACAGTATTACTGATGGTCCAGCAATGAAAAGCAGCTTACACAGGACGGAAAGAACGA  
GTAATCAAACCTCATCACTGGCAGAGCAGACTGGTGCAGTCAAGTGTACACCTGCCACTCAAGGGAGGTTAACCTATCAATTATATAC  
ATTCTGCATATGTTGAGACGGCTACAAGGGATGTTGAGACAGCTTAATTAAATATAGCATGGATGATCAGTTAACAGCTATTCAATTATTACA  
ACAAACTGTAAGAAAAGAAAATTCCCTTATATTACACATATTGAGCACACACTAATTACAGGCCCTTGAATGACTAAAGCAAATGAACAGCT  
GACTTACTGGTATCATGCACTCATAAAGCACAAGAACCTCATGTTGACTCATGTTAAATGCAAGCAGGTTAAAACAAATTGATGTCACT  
GGAAACAGGAAAGATATTGACAACATTGCAACCCAGTGTCAAGTCTACACCTGCCACTCAAGGGAGGTTAACCTGAGGTCTGTGTC  
TAATGCATTATGCCAATGGATGTCAGCATGTCACCTCATGGAGATTATCATATGTTCACTGTAACAGTTGATACTTATTCAATTCTATAG  
GCAACTTGCACACAGGAGAAAGTACTTCCATGTTAAAACATTTATTGTTGCTGTGATAGGGAGTTCCAGAAAAAAATCAAACAGCACA  
ATGGACCAGGATATTGAGTAAAGCTTCAAAATTCTAAGTCAGTGGAAAATTTCACATACAACAGGAATTCTTATAATTCCAAGGACAGGC  
CATAGTTGAAAGAACTAATAGAACACTCAAACACTTAACAGTTAAAACAAAAGAAGGGGGAGACAGTAAGGAGTGTACACTCCTCAGATGCACT  
AACTAGCACTCTACTTTAAACATTATAGAAATCAGACTACTACTCTGCAAGAACACATCTACTGTTAAAAGAACAGCCAC  
ATGAAGGAAAACAAATTGGTGGAAAGATAATAAAAATAGACATGGGAAATAGGGAGGTGATAACGTGGGGAGAGGTTTGCTGTGTTCA  
AGGAGAAAATCAGCTTCTGTTGGATACCCACTAGACATTGAGTTCTACATGAACCCATCAGAGATGCAAGAAAAGCACCTCCGGAGACG  
GAGACATCGCAATCGAGCACCGTGTACTCACAGATGAACAAAATGGTACGTCAGAGAACAGATGAAGTTGCTACCCACCAAGAAGGCC  
CCAACCTGGGACAACAAAGAGCTACGCGAGTTAGCTACAAAATATCTAGAGAACACAAAGGTGACACAAACCCAGAGAGTATGCTGCTGCA  
CTTGATATTGATCAATGGTGGTAAGTCTCCATGCTGCAGGAGCAGCTGAGCTAA

**SEQ ID 66**

ATGAACAGAGCGCGAACGCGCGAACCGCGAGAGCCTGCTGGCGCCACCGTGGAGCCCCCAAGCCCATCCCCCTGACCTGGAAGACCGAGA  
AGCCCGTGTGGTGAACCGAGTGGCCCTGCCAACGAGCAGAACAGCTGGAGGGCCCTGCCACCTGCTGGCAACAGGAGCTGGAGAAGGGC  
CAGCTTCAGGCCCTGGAACAGCCCGTGTGATCCAGAAGAAGAGCGCAAGTGGCGCATGCTGACCGACCTGCCGTGAACGCCGTGATC  
CAGCCCATGGGCCCTGCAAGCCCGCTGCCAGCCCGCATGATCCCAAGGACTGGCCCTGATCATCATGCCACTGAAGGACTGCTTCTCA  
CCATCCCCCTGGCGAACAGGACTGGAGAACGCTGCTACCCATCACACAAACAGGAGCCACCCGCTTCACTGGAAGGTGCT  
GCCCGAGGCATGCTGAACAGCCCAACATCTGCCAGACCTCTGTTGGCCGCCCTGCAAGGCGTGCAGAGAAGTTCAAGCAGCTACATCATC  
CACTGCACTGAGCACATCTGTGCGCCGAGACCAAGGACAAGCTGATGCACTGCTACACCTCTGCAAGGCGAGGTGGCAACGCCGGCTGG  
CCATGCCAGCGACAAGATCCAGACAGCACCCCTTCAACTACCTGGCATGCAAGTCAAGGCCAGAACGATCAAGCCCCAGAACGAGATCG  
CAAGGACCCCTGAAGACCCCTGAAGACTTCCAGAGGACTGCTGGCGACATCAACTGAGATCCGCCACCCCTGGGATCCCCACCTACGCCATGAGC  
AACCTGTTAGCATCTGCGCCGGCAGCGACCTGAACAGAACGCGCATGCTGACCCCGAGGCCACCAAGGAGATCAAGCTGGTGGAGGAGAAGA  
TCCAGAGCGCCAGATCAACCGCATGACCCCTGGCCCCCTGCAAGCTGCTGATCTGCCACCGGCCACGCCACCGGCATCATCCAGAA

CACCGACCTGGGGAGTGGAGCTCCGCCACAGCACCGTGAAAGACCTCACCTGTACCTGGACCAGATCGCACCCGTATCGGCCAGACCCGC  
CTCGCATCATCAAGCTGCGGCAACGACCCGACAAGATCGTGGCTGACCAAGGAGCAGGTGCGCAGGCCATCAACAGCGGCC  
GGAAGATCGGCCACTCGTGGCATCATCGACAACCACCTACCCAAGACCAAGATCTTCAGTTCTGAAGCTGACCACCTGGATCTGCC  
CAAGATCACCCGCCGAGCCCTGGAGAACGCCCTGACCGTGTACCGACGGCAGCACCAACGCCAGGGCCCTACACCGGGCCAGGAGCG  
GTGATCAAGACCCCTACCGAGCGCCAGCGCCAGCTGGTGGCTGATCACCGTCTGCAGGACTTCGACCCAGGCCATCAACATCATCACCG  
ACAGCGCCTACGTGGTGCAGGCCACCCGCAGCTGGAGACGCCCTGATCAAGTACAGCATGGACGACCAGCTGAACAGCTGTCACCTGCTGCA  
GCAGACCGTGCAGCAAGCGCAACTCCCTCTACATCACCCACATCCGCCCCACACCAACCTGCCGCCCTGACCAAGGCCACCGAGCG  
GACCTGCTGGTGGAGCAGGCCCTGATCAAGGCCAGGAGCTGCACGCCCTGACCCAGTGAACGCCGCCCTGAAAGAACAGTTCGACGTGACCT  
GGAAGCAGGCCAGGACATCGCAGCACTGCACCCAGTGCAGGTGTCACCTGCCACCCAGGAGGCCGCTGAACCCCCCGGCCCTGTC  
CAACGCCCTGTCAGATGGACGTGACCCAGCTGCCAGCTGCCGCTGAGCTACGTGACCGTGGACACCTACAGCCACTTCATCTGG  
GCCACCTGCCAGCCGGCAGAGCACCAGCACGTGAAGAAGACCTGCTGACCTGCTGCTTCGCGTGTGGCGTGGAGAACAGACCGACA  
ACGGCCCCGGCTACTGCACCAAGGCCCTCAGAAGTCTGAGCCAGTGGAAAGATCAGCCACACCACCGCATCCCTACAAACAGCCAGGGCCAGG  
CATCGTGGAGGCCACCAACGCCACCTGAAGACCCAGCTGGTGAAGCAGAAGGAGGGCGCGACAGCAAGGAGTGACCCAGGCCAGATGCA  
AACCTGCCCTGATCACCCCTGAACATCTACCGCAACCAGACCCAGCAGCGAGCACCTGACCGCAAGAACAGCCCC  
ACGAGGGCAAGCTGATCTGGAGAACACAAGAACAGACCTGGAGATCGCAAGGTGATCACCTGGGCCGCTTCGCGTGA  
CGCGAGAACCGACTGCCGTGTGGATCCCAACCGCACCTGAAGTCTACACGAGCCATCCGCAAGAACAGCACCAGCGAGAC  
GAGACCAGCCAGAGCAGCACCGTGGACCCAGGAGCAGAACCGCAGTGCACGCCGACCGACGAGGTGGCATCCACCAGGAGGCCGCC  
CCAACCTGGGCCACCACCAAGGAGGCCGACCCGTGAGCTACAAGATCAGCCGAGCACAAAGGCCACACCAACCCCCGAGTACGCCCTGCA  
CCTGGACACTGCATCAACGGCGCAAGGCCCTACGCCCTGCCGAGCTGCAGCGTTAA

**SEQ ID 67**

MNPSEMQRKAPPRRRHRNRAPLTHKMNMKVTEEQMQLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPSNSSEE  
TATIENGPA

**SEQ ID 68**

MNPSEMQRKAPPRRRHRNRAPLTHKMNMKVTEEQMQLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVVYPTAPKRQR  
PSRTGHDDDDGFVEKKRGKCGEKQERSDCYCVVERSRRRLHFVLYA

**SEQ ID 69**

MGOTKSKIKSKYASYLSFIKILLKRGGVVKVSTKNLIKLFQIEQFCPWPEQGTLDLKDWKRIGKELKQAGRKGNIIPLTWNDWAIKAALEPFQT  
EEDSVSVSDAPGSCIIDCNENTRKKSQKETEGLHCEVAEPVMAQSTQNVDYNQQLQEVIYPETLKLEGKGPVELVGPSESKPRGTSPPLPAGQVPVTLQ  
PQKQVKENKTQPPVAYQYWPPAELQYRPPESQYGYPMPPAPQGRAPYQPQPTTRRNPTAPPSRQGSKLHEIDKSRKEGDTEAWQFPVTLEPMPP  
GEQAQEPEPPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLDSIAHGHLIIPDWEILAKSSLSPSQFLQFKTWWIDGVQEQRNRAANPPV  
NIDADQLLGIGQNWTISQQLMNEAIEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVAKSIADEKARKVIVELMAYENAN  
PECQSAIKPLKGKVPAGSDVISEYVKACDGIGGAMHKAMLMAQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPLNKQNTIQATTGREPPDLC  
PRCKKGKHWASQCRSKFDKNQPLSGNEQRGQPQAPQQTGAFPIQPFVPGFQGQQPPLSQQVFGISQLPQYNNCPPQAAVQQ

**SEQ ID 70**

MGOTKSKIKSKYASYLSFIKILLKRGGVVKVSTKNLIKLFQIEQFCPWPEQGTLDLKDWKRIGKELKQAGRKGNIIPLTWNDWAIKAALEPFQT  
EEDSVSVSDAPGSCIIDCNENTRKKSQKETEGLHCEVAEPVMAQSTQNVDYNQQLQEVIYPETLKLEGKGPVELVGPSESKPRGTSPPLPAGQVPVTLQ  
PQKQVKENKTQPPVAYQYWPPAELQYRPPESQYGYPMPPAPQGRAPYQPQPTTRRNPTAPPSRQGSKLHEIDKSRKEGDTEAWQFPVTLEPMPP  
GEQAQEPEPPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLDSIAHGHLIIPDWEILAKSSLSPSQFLQFKTWWIDGVQEQRNRAANPPV  
NIDADQLLGIGQNWTISQQLMNEAIEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVAKSIADEKARKVIVELMAYENAN  
PECQSAIKPLKGKVPAGSDVISEYVKACDGIGGAMHKAMLMAQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPLNKQNTIQATTGREPPDLC  
PRCKKGKHWASQCRSKFDKNQPLSGNEQRGQPQAPQQTGAFPIQPFVPGFQGQQPPLSQQVFGISQLPQYNNCPPQAAVQQ

**SEQ ID 71**

MWATIVGKRAKGPMASGPTTNWGIPNSAICSSGFSGTTPTVPSVSGNKPVTIIOQLSPATSGSAAVDLCTIQAVSLPGEPPQKPTGTVYGPLPKGT  
VGLLIGRSSSLNLKGVQIHTSVVDSDYKGEIQLVISSSIWSASPRDRIAQLLLLPIKGGNSEIKRIGGLSTDPTGKAAYWASQVSENRPVCKAII  
QGKQFEGLVDTGADVSIIALNQWPKNWPQKAVTGLVGIGTASEVYQSTEILHCLGPDNQESTVQPMITSIPLNLWGRDLLQQWGAEITMPAPSYP  
TSQKIMTKMGIIPGKGLGNEDGIKIPVEAKINQEREGIGNPC

**SEQ ID 72**

MWATIVGKRAKGPMASGPTTNWGIPNSAICSSGFSGTTPTVPSVSGNKPVTIIOQLSPATSGSAAVDLCTIQAVSLPGEPPQKPTGTVYGPLPKGT  
VGLLIGRSSSLNLKGVQIHTSVVDSDYKGEIQLVISSSIWSASPRDRIAQLLLLPIKGGNSEIKRIGGLSTDPTGKAAYWASQVSENRPVCKAII  
QGKQFEGLVDTGADVSIIALNQWPKNWPQKAVTGLVGIGTASEVYQSTEILHCLGPDNQESTVQPMITSIPLNLWGRDLLQQWGAEITMPAPSYP  
TSQKIMTKMGIIPGKGLGNEDGIKIPVEAKINQEREGIGNPC

**SEQ ID 73**

MNKSRRNRESLLGAATVEPPKIPLTWKTEKPVWVNQWPLPKQKLEALHLLANEQLEKGHIEPSFSPWNSPVFVIQKSGKWRMLTDLRNAV  
QPMGQLQPLPSMAPKDWPLIIDLKDCFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYII  
HCIDDILCAAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLMQIENRKIKPQKIEIRKDTLKTLNDFQKLLGDINWIRPTLGIPTYAMS  
NLFSIIRGDSDLNSKRMLTPEATKEIKLVEEKIQSAQINRIDPLAPLQLIFATAHSPTGIIIQNTDLVEWSFLPHSTVKTFTLYLDQIATLIGQTR

20/25

LRIIKLCGNDPKIVVPLTKEQVRQAFINSGAWKIGLANFVGIIIDNHYPKTKIFQFLKLTWILPKITRREPLENALTVDGSNGKAAYTGPKER  
 VIKTPYQSAQRQELVAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDQLNQLFNLLQQTVRKRNFPPYITHIRAHNTLPGPLTKANEQA  
 DLVSSALIKAQELHALTHVNAAGLKNKFDTWKQAKDIVQHCTQCQVLHLPQEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSHF  
 ATCQTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQGQAIERTNRTLTKQLVKQKEGGDSKECTTPQMQL  
 NLALYTLNFLNIYRNQTTTSAEQHLTGGKNSPHEGKLIWWDKDNKNKTWEIGKVITWGRCFACVSPGENQLPVWIPTRHLKFYNEPIRDAKKSTAET  
 ETSQSSTVDSQDEQNGDVRRTDEVAIHQEGRAANLGTKEADAVSYKISREHKGDTNPREYAACSLDDCINGGKSPYACRSSCS

**SEQ ID 74**

MNKSRRRNRESLLGAATVEPPKIPPLTWKTEKPVWWNVQWPLPKQKLEALHLLANEQLEKGHIIEPSFPWNSPVFVIQKKSGKWRMLTDLRAVNAVI  
 QPMGLQPGPLSPAMIPKDWPLIIDLKDCFTIPLAEQDCKEFAFTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYII  
 HCIDDILCAAETDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLMQIENRKIKPQKIEIRKDTLTLNDFQKLLGDINWIRPTLGIPTYAMS  
 NLFSILRGDSDLNSKRMLTPEATKEIKLVEEKIQSAQINRIDPLAPLQLLIFATAHSPTGIIQNTLVEWSFLPHSTVKTFTLYLDQIATLIGQTR  
 LRIIKLCGNDPKIVVPLTKEQVRQAFINSGAWKIGLANFVGIIIDNHYPKTKIFQFLKLTWILPKITRREPLENALTVDGSNGKAAYTGPKER  
 VIKTPYQSAQRQELVAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDQLNQLFNLLQQTVRKRNFPPYITHIRAHNTLPGPLTKANEQA  
 DLVSSALIKAQELHALTHVNAAGLKNKFDTWKQAKDIVQHCTQCQVLHLPQEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSHF  
 ATCQTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQGQAIERTNRTLTKQLVKQKEGGDSKECTTPQMQL  
 NLALYTLNFLNIYRNQTTTSAEQHLTGGKNSPHEGKLIWWDKDNKNKTWEIGKVITWGRCFACVSPGENQLPVWIPTRHLKFYNEPIRDAKKSTAET  
 ETSQSSTVDSQDEQNGDVRRTDEVAIHQEGRAANLGTKEADAVSYKISREHKGDTNPREYAACSLDDCINGGKSPYACRSSCSA

**SEQ ID 75**

TGTGGGAAAAGAAAAGAGAGACTCAGACTGTTACTGTGTCATGTAGAAAAGAAAATAGACATAAGAGACTCCATTGTTCTGTACTAAGAAAAATTCT  
 TCTGTTGAGATGCTGTTAACATCTGTAACCCTAGCCCCAACCTGTGCTCACAGAAAAGGGTGTGTTGACTCAAGGTTAACGGATTCTGGGATCAGGGCT  
 GTGCAGGATGTCCTTGTAAACAAATGCTGAAGGCAGCAAGCTGTTAACAGTCACCTCCCTAATCTCAAGTAAGCAGGGACACAAACAC  
 TGCGGAAGGCCGAGGGACCTCTGCCTAGGAAAGCCAGGTGTTGCTCAAGGTTCTCCCATGTGACAGTCTGAAATATGCCCTTGGGAAGGGAA  
 AGACCTGACTGTCCCCTGGCCGACACCCGTAAGGGTGTGCTGAGGATTAGTAAAGAGGAAGGAAGGCCTCTGGCAGTTGAGATAAGAGGAA  
 GGCATCTGCTCTGCTCATCCTGGCAATGGAATGCTTGTGTAAGCCTGATTGTATATGCCATCTACTGAGATAAGGAAAATGCCCTAG  
 GCTGGAGGTGGACATGCTGGCGCAATACTGCTTTAACAGTCATTGAGATGTTATGTATATGCCATCAAAGCACAGCACTTTTCTTACCT  
 TGTATATGATGCAAGAGACATTGTTACATGTTCTGGCCCTCTCCCACTATTACCCATTGCTCTGCCACATCCCCCTCTCCGAGATGGT  
 AGAGATAATGATCAATAAAATCTGAGGGACTCAGAGACGGTGCAGGGGGCTCCATATGCTGAGCAGCCGTCCTGGCCACTTTCTT  
 CTCTAATCTGTTCTGTTCTGTTCTCAAGTCTCTGTTCCACCTGAGGAAATGCCACAGCTGTTGAGGAGAAGGAGCCACTCCATCTG  
 GTGCCAACGTTGAGTGTCTTCTAGGGTAAGGGACTCTGAGTGTGTCATTGAGGACAAGTCACGAGAGATTCCGAGTACGTCTACAGTGA  
 GCCCTGTTGAGTGTCTTCTGGGGCTCGGAAGAACGCCAGGGTAATGGGCAAACCTAAAGTAAAGTCTCTCATTCACCTGATGAGAAACACCCAGGG  
 TGTTGAGGGGAGGCCACCCCTCAGGGTAGGGTCCCCTCATGCAAGGACATAGACGACAGGTGCCCCAAAGAGGAGCAGAGAGAAGGAGGAGA  
 GGGCCACGAGAGACTGGAAATGAATGGCAGGATTTCAGCGCTGGACTGGGTTGGGGCACCTGGCTTTCTGTGTTATTCTCCTACTGTT  
 CCTAATTTAATACAATAAAAGAAAACGCCCTGGTCTTGTTGTTGTTCCACCCCTCCGGCTGGCTGGCTGGCTTCCCTCCGCA  
 GCTCTGCTGTGTT  
 TTTTCTGGGACCCAGAGAGAAGGGCTTGTGTT  
 TGACCTGGCTGGCCACGCCCTGGTGGAAAGGAAAGACCTGACGGTCCCCAGCCGACACCCGTAAGGGCTGTGCTGAGGAGGATTAGTAAAGGGAG  
 CCTGACATCTGTT  
 TTTGAGCTGTT  
 ATCAAGGTTAAGGGATCAAGGGCTGTACAGGATGTGCTTGTAAACATGTGTTACGGCAGTATGCTGTTGTTAAAGTCTGCTTGTGTTGTTGTT  
 CTCCATTAAATCAGGGCACGATGCACTGCCAACGCCAGGGACCTCTGCCGAGAACGGCTGGTATTGCTCAAGGCTTCCCCACTGAGACAG  
 CCTGAGATACGCCCTGTTCTCCACCGCATCCCCCTGAGGAGATCTGAGGAGATCTGAGGAGGTTAGTAAAGGAGACATAACTCCAT  
 GCCCTGCTGAGGAGATAAGAGGAAGGCCCTGGCTCTCCGATGCTTGGGAGGAGATAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
 TCTGAGGAGAAAGGAG  
 GAAGCATAAAATCTGGCTATGTGACATCTGGGACAGAACCTCCCTGAACTGTGACACAGATCTTGTGTTACATGTTGTTGTTGTTGTTGTT  
 CTCCCCACTATGCCCTGTTCTCCACCGCATCCCCCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
 GTGCACATCTCCGCTGCTGAGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCT  
 CCCCCTGAG  
 GTGTGGTATTGAGGAGAAGTGTGAGGAGAGTCCCAAGTACGTCCACGGTCAGCCTGGGTAACCTGTTGTTGTTGTTGTTGTTGTTGTT  
 TGGGCAAACTGAAAGTAAATGCTCTTATCTCAGCTTATTAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
 GCTATTCTAACAAATAGAACATTGCCCCATGGTTCCAGAACAGGGAACTTGTAGCTAAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
 GCAAATAGGGAGGAAAGTAAATCCCACTTACAGTATGGAATGATTGGGCAATTAAAGCAACTTGTAGGAGGAGGAGGAGGAGGAGGAGGAG  
 TTTCAGTTCTGATGCCCTAAAGCTGTTGTAACAGATTGTAAGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
 TGAGCAGAGTGTGTTGAGCTGCTAGTCACAGCAATTACAGGAGATAATACCCCTGAACTCATCAAAATGGGGAGGAGGAGGAGGAGGAG  
 GGTCCAGAATCTGGGGCCATCAGAGCCTAACCCACGATGCCCATCAACTCTCTCCCTGGTTGAGATGCTGTTGAACTTACACCTCAACAC  
 AGGTTAGACAAGCACAAACCCCAAGAGAAAATCAAGTAGAGAAGGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
 GCCGGTAGAAAATAGACCCAACCCGCTGGTAGTTATCAATACCGGCTGCCAACCGGATGGCTCAATTCCACAGCAACAGGAGGAGGAGGAG  
 CAAGCGGTGTCTGTGCAAATAGCAGGCCACCATACCAGCAACCCACAGCGATGGCTCAATTCCACAGCAACAGGAGGAGGAGGAGGAG  
 CTCAGCCGCCACTGTGAGACTTAATCCTACAGCATCACGTAAGTGGACAGGGTGGTGCAGTCAGTCAGTCATTGATGAAGCCAGAAAAGAGGCGA

TCTTGAGGCATGGCGGTTCTGGTAATTAACTGGTACAGGCCGGGAAGAGACTCAAGTAGGAGCGCCTGCCGAGCTGAGACTAGATGTGAA  
CCTTTCACCATGAAAATGTTAAAAGATATAAAGGAAGGACTTAAACAATATGGATCCAATCCTCCCTATATAAGAACATTATTAGATTCCATTGCTC  
ATGGAAATAGACTTACTCCCTATGACTGGGAAATTGGCAAATCTCCCTTCATCCTCTCACTATCTACAGTTAAAACCTGGTGGATTGATGG  
AGTACAAGAACAGTACGAAAAATCAGGCTACTAAGCCCCTGTAAATATAGACCGAGCCAATTGTTAGGAACAGGTCCAATTGGAGCACATT  
ACCAACAATCAGTGTGAGGACTATTGAAACAATGAGGCTATTGCTCAGGGCCTGGGAAAATTCAAGGACCCAGGAACAGCTTCC  
CTATTAAATTCAATTAGACAAGGCTCTAAAGGCCATATCTGACTTTGTCAGGAAAGTCAAGATGCTCAAAGTCTATTACAGATGCAATGC  
CCGAAAAGTTATTGAGAATTAAATGGCTATGAAAATGCAAAATCCAGAAATGTCAGTGGCCATAAGCAATTAAAGGAAAAGTCCAGCAGGAGTT  
GATGTAATTACAGAATATGTGAAAGGCTTGATGGGATTCAGGAGGACTATGCATAAGGCAATGCTAAATGGCTCAAGCAATGAGGGGCTACTCTAG  
GAGGACAAGTTAGAACATTGGGAAAATGTATAATGTTGTCAGGCTATTGCTGAAATGGGAGTTGCCCAGGCTTAAATAACAGAATATAAT  
AAATCAAGCTATTACAGCAAAATAAAAGCCATCTGGCTGTGCTAAAATGTGAAAAGGAAACATTGGGCAATCAATGTCATTCTAAATT  
GATAAAAGATGGGCAACCATTGCTGAAACAGGAAGAGGGCCAGGCTCAGGCCCTAACAAACTGGGGCATTCCAGTTAAACTGTTCTCCTC  
AGGGTTTCAGGACAACAACCCCTACAGAAAATACCACCACTTCAGGGAGTCAGGCAATTACACAATCAACAGCTGCCCCGCCACAGCAGG  
AGCACCGCAGTAGATTATGTCACCCAAATGGTCTTTACTCCCTGAAAGCCCCACAAAAGATTCTCTAGAGGGGTTATGGCCGCTGCCAG  
AAGGGAGGGTAGGCCCTTGAGGGAGTCAGGCTAAATTGAGGGAGTCAGGCTAAATTGAGGGAGTCAGGCTAAATTGAGGGAGTCAGGCT  
GTTAGTGTAGCTCCACTGTTCCCGAGTGCCTAACTCAGGTGATAGAATTGCTCAATTACTGCTTGTGCTTATGTTAAATTGGGAAAACAAA  
AAGGAAAGAACAGGAGGGTTGAGTACCAACCCCTGCAAGGAAAGCTGTTATTGGGCTAAATCAGGCTCAGAGGATAGACCGTGTGAGTC  
CTATTCAAGGAAAGAGTTGAGGATTAGTGTGATACCCAGGCTGATGTTCTGTCTAGGCTCTAGGACTGCTCAGAAGTGTATCAAAGTCCATG  
ATTTTACATTGTCAGGATCTGATAATCAAGAAAGTACGTTAGGCTCAGCTGTGATCACTCATTCAATCAATTATGGGCGAGACTGTTACAACA  
ATGGCATGCAGAGATTACTATCCAGCCTCCCTACAGCCCAGGAATAAAAATCATGACTAAAATGGGATAGCTCCCTAAAGGGACTAGGA  
AAGAAGTCCCAATTGAGGCTGAAAAAAATCAAAAAGAAAAGGAATAGGCATCCTTTAGGACGGTCACTGTAGAGCCTCAAAACCCATTCCA  
TTAATTGGGAAAAGAAAACAACTGTATGTTAAATCAGCGCTTCTAAAACAAAAGTGGAGCTTACATTATTAGCAAAGAAACAATTAG  
AAAAGGACATTGAGCCTTCATTGCGCTTGGAAATTGCTGTTGTAATTGAGGAAATTCGGCAGATGGCTATAATGCCGTAATTCAACCCATTGG  
GGGCTCTCCACCCGGTTGCCCTCTCAGGCTGGTCCCTTAATTATAATTGATGCTGAGGATTGCTTTTACCTATTCTGCAAAACAGG  
ATTGTTGAAAATTGCTTTACACACCAGCTAAATAATAAGAACAGCCACAGGTTCACTGAAAGTATTGCTCAGGGAAATGCTTAAATAGT  
TCAACTATTGTCAGCTCAAGCTGCAACCAGTTAGAGACAAGTTTCAGACTGTTACATGTCATCTATGTTGATATTGTTGCTGAGAAC  
GAGAGACAATTAAATTGACCGTTACATTCTGCAAGACAGGTTGCAACGCGGACTGACAATAACATGATAAGATTCAAACCTCTACTCCT  
TTCCGTTACTGGGAAATGCAAGGAGGAAAGGAAATTAAACCAACAAAATAGAAAATAGAAAAGACACATAAAAGCATTAAATGAGTTCAAA  
AGTTGCTAGGAGATACTAATTGGATTGGAGATATTGATGGCAACTCTAGGCTATTCTCTATTGCTGCAATTGTTGCTCAGGGAAATGCTTAA  
TAAGACGGGACTCGGAAATTAAATGTGAAAGAACGTTAACCTCAGAGGCAACTAAAGAAATTAAATTGAGGAAAATTGCTGAGCACAAGT  
AAATAGAAATAGATCACTGGCCCCTCCTAAATTGATTTGCTACTGCACTTCAGGCTATTGCTAAACAGGCTATTGCTCAAATACAGATCTGTGGAG  
TGGCTCTCTCTCAGTACAATTAGACTTTACATTGACTTGGATCAAATGGCTACATTAAATTGGTCAAGGAAAGATTGAGTAAATAACAT  
TGTGTTGAAATGACCGAGATAAAATCACTGTTCTTCAACAGCAACAGGTTAGACAAGCCTTATCAATTGTCATGCCAGATTGGCTTGC  
CGATTGTTGAAATTATTGACATCGTACCCAAAACAAAATCTCCAGTTTAAAATTGACTACTTGGATTTCACCTAAAGTTACAAACAT  
AAGCTTAAAGGACATTGCTGGCAGTGTACTGATGGITCCAGCAATGGAAAAGTGGCTACACGGGCAAAAGAATGAGTCATCAAACCTCAGT  
ATCACTGACTCAAAGAGCAGAGTGGTTGCCATTACAGTGTAAACAGATTAACTCAGTCTATTAAACATTGATCAGATTCTGCTATGTC  
TACAGGCTACAAAGGATATTGAGGAGGCCATTCAAAATACATTGGATGATCAGTTAAACCCGCTGTTAAATTGTTACAAACAAAATGTAAGAAA  
AAGAAATTCCCATTATTACTCATTCAGGACACACTAAATTACAGGGCTTAACTAAAGCAAAATGCAAGCTGACTTGCTAGTATCA  
TCTGCATTGACAGCACAAGACTTCATGCTGACTCATGTAATGCAATAGGATTAAAATAATTGATATCACATGGAAACAGACAAAAAA  
ATATTGTCACACATTGACCCAGTGTCAATTCTACACCTGCCACTCAGGAGGCAAGAGTTAACTCAGGCTATGCTTAATGTTGCTAATGTTGCA  
ATGGATGTCATGACGTCACCTTCATTGGAAAATTGTCATTGTCATGTGACAGTTGATACTTATTCAACATTGCTATGGCAACCTGCCAGACA  
GGAGAAAGTACTCCCATGTTAAAGACATTATTCTGTTCTGCTATGGACTTCCAGAAAAGTAAACAGACAAATGGCCAGTTACT  
GTAGTAAAGCAGTCAAAATTCTTAAATCACTGGAAAATTACACATAACAGGAAATTCTCTATAATTCCAAAGGACAGGCCATAATTGAAAGAAC  
TAATAGAAACACTCAAAGCTCAATTGGTAAACAAAAAGAAAAGACAGGAGTAAACACTCCCCAGATGCAACTTAATCTGCACTTAACTT  
TAAATGTTTAAACATTATAGAAATCAGACCACTACCTCTGCAAGAACACATCTACTGGTAAAGGAACAGCCACATGAAGGAAAATGATTG  
GTGGAAAGATAATTAAACATGGGAAATGGGAAAGGTGATACTGGGGGAGGGTTGCTGTTGCTCAGGAGGAAAATCAGCTT  
GTTTGGATACCCACTAGACATTAAAGTCTACAAATGAACTCACTGGAGATGCAAAAGAAAAGTGTGGAGATGGAGACACCCCAATGACTGCCAGG  
TAAACAAAATGGTGTATCAGAAGAACAGAAAAGTGGCTTCCATAGGAAGGAGCTGCAATTAGGCAAAATTAAAGAAGGCTGACACAGTT  
AGCTAAAAAAAGCTAGAGAATACAAAGGTGACACCAACTCCAGAGAATATGCTGCTGCACTGTTGATGTTGCTGAAACGGTGGTAAGTCTT  
CCCAACTCTGCAAGGAGCAGCTCAGCTAAATTACTACTGGCCTTCTCCACCCCTAATTGCTGCACTTACATAGATGGATAATTCTA  
TTGAAAGTAGATGTTAATAATTAGTGCATGGTGCTGGCCCTGGGCCCACAGATGACTGTTGCTGCTGCCAACCTGAAAGAAGGAATGATGTAATTCTCAT  
TGGGTATCCTTATCCTCTGTTGCTTAGGGAGGGCAGGAGTGTCTTAATGCTCAACCCAAAATTGGTGTGAGAAGTACACTCAGTCTGCT  
ACCACTGATTACTTATCAGGTAAGTGGAAATGTCAGAGATAAAATTACAGGACCCCTTCTTCAAGGATCATTCAACAGTCAATTACAGTGGCTAAGG  
GGAAGGCTTCCCAAGGAATTCCAAAGAATCAAAAGCCCAGAAGTCTTACTCTGGGAGAATGCTGAGGCTGATACTGCAAGTGTAGTACAAAAC  
AATGAATTGAACTATGATAGACTGGTCCCTGGAGGCAATTATATCATAACTGTCAGGCGCAGACTCATTGCTGTTGCTCACAGGCCCATCT  
GCCCATTAATCCAGCTATGACGGTGTACTGAAAGCTGGACAGGTTATAGAAGGTTGAGAATCTACTCTGCTGCAAGGAAATGGGTGAAAA  
GGGAATTTCATCACCTGACCAAAAGTTAGGAGGACTCTGCTTACTGGCTCTGAAACATCCAGAATTAGGAAGCTACTGTGGCTCAGACCAATTAGAATTG  
TTCTGAAATCAAGCTATAGGAAACAAGAGATGCTAAGTATTATACATTCAACCTAAATTCCAGTCTGACAATTCTCTTGGAAAATTGTTGAA  
CTCCCTTATATTGCTAGTTGAGGAAAACATAGTTAAACCTGATTCCAAACCTAATCTGTTGAAATTGTTACTTGCTATTGATT

TGACTTTAATTGGCAGCACCGTATTCTACTAGGAAGAGCAAGAGAGGGGTGTGGATCCTTGTGTCATGGACCGACCAGGGAGGCTTCGCTATC  
 CATCCATATTAAACCGAAGTATTAAAGGAATTCTAAGTCAAGATCAGTCAAAGATTCTTACTGATGGCAGTGATTATGGCCTCATTCAGTC  
 ACAGCTACTGCTGCGCTGCTGGATTGCTTACACTCTGTTCAAAGTCAAGAATACGTAATGATTGGCAAAAGAATTCTCAAATTGTGGA  
 ATTCTCAGATCCAATAGATCAAATTGGCAACCAAATTATGATCTTAGACAACAGTCATAATGAGTGTGAGCATCACTGGGACATGGTTAGATCCA  
 TCTGCAAGGAGGAGAAGATAATCTTACTTACAGATTTGTTACACCAAGCCTATAATGAGTGTGAGCATCACTGGGACATGGTTAGATCCA  
 GAGTGCAGTGGCGTGTCTCAGTCAGTCAGTCAAGTCCGCCCTGGTTACACCATCTCCTGCTCAGCCTCCAAAGTAGTTGGACTACAGGAG  
 CCCACCAACATGCCCTGGCTAATTTTTGGGTTAATAGAGATGGAGTTACCGTGTAGCCAGGATGGTCTGATCTCTGACCTTGATC  
 TGCCCACCTGGCTCCCAAAGTGTGGATTACAGTCAGCCACCGTCCCCAGCAAGAAAATTGGGAGGATCTAATT  
 TGGTGCCAGGAACGGAGACAATCGTAAAGCTGTGATAGCTCACAATCTTAAAGCAGTCAGTGGTTAAAGCATCAGAAGTTCACTATTGT  
 AAATTTCATATTAATCTTGTATGCTGTTCTGTTAGTCTACAGGTGTATCAGCAGTCAGCCTAAAGAGACAGCAACAGCAAGAATGGCC  
 ATAGTGCAGTGGTGGTTGTCAAAAGAAAAGGGGGGATATGTAAGGAAAAGAGAGATCAGACTTCACTGTTGCTATGTAGAAAAGGAAGACA  
 TAAGAAAATCCTTTGATCTGACTAAGAAAATTGGTTGCTTGTAGATGCTGTTAACATCTGTAACCTTACGCCCCACCCCTGCTCAGGAAACA  
 TGTGCTGTAAGGTTAAGGGATCTAGGGCTGTGAGGATGTACCTTGTAAACAATATGGTGTGAGGAGTATGTTGGTAAAGTCATGCCATTCT  
 CCATTCTCGATTAACCAAGGGCTCAATGCACTGTGAAAGCCACAGAACCTCTGCCAAGAAAGCCTGGCTGTGTTGGAAAGTCAGGGACCCGAA  
 TGGAGGGACCAGCTGGTGTGATCAGGAAACATAATTGTGAAGATTTCTGGACATTATCAGTTCCAAATTAAACTTATAATTCTTAC  
 ACCTGCTTACTTTAATCTTAACTCTGTTATCTTGTAACTGAGGATATACGTCACCTCAGGACCACTATTGTACAAATTGATTGAAACATG  
 TTCACATGTTGAAACAATATGAAATCAGTCACCTGAAAATGAACAGAATAACAGTGAATTAGGAAACAAAGGAAGACAACCATAGGCTGA  
 CTGCTGAGGGGTCGGCAAAAGCCATATTCTCTGCTGAGAGAGCTATAATGGACGTGCAAGTAGGAGAGATATTGTAATTCTTCT  
 AGCAAGGAATATAACTAAGACCTAGGGAAAGAATTGCACTTCTGGGGAGGTCTATAACGGCCGCTCTGGAGTGTCTTCTATGTGTTG  
 AGATAAGGACTGAGATACGCCCTGGTCTCTGCTGAGTACCCCTCAGGCTTACTAGGATTGGAAACCCAGTCCTGTTAAATTGAGGTCAAGGGCGTT  
 CTTTGCTGTAACCCCTGTTCTGTTAAGATGTTATCAAGACAATACATGCAACCTGTAACATAGCCTTATCAGGAGTTCTGATTGCTCTG  
 GTCCTGTTCTCAGAGCATGTCATCTTGTCTGCTCTGCCCTTGAGCATGTGATCTTGTGACCTACTCCCTGTTACACCCCCCT  
 TTTAAATCCCTAATAAAACTTGTGTTTGTGGCTAGGGGGCATATGGACCTACCAATACGTGATGTCACCCCCGGTGGCCAGCTGTA  
 ATTCTCTTCTTATACTCTTATTCAGACAGCTGACACTTGGGAAAATGAAAGACCTATGTAATATTGGAGGCGGTTCCCCCGATA  
 CCTGGGTATTGTCAGGTTCTCTGCTGAGGAGATTAGTAAAGGAATGCTCCATCTCTGCTGTCATGCTGGAAACAGAATGTTCCACAA  
 CACCCCTGTCGGCTGGAGGGATATGCTGGCAGCAATGCTGCTATTACTCTTGCTACACTGAGATGTTGGTGGAGAGAAGCATAAATCTGG  
 CTATGTGCACATCTGGCACAGCACCTCTTGAACCTTGTGACACAGATTCCTTGCTCACGTTCTGACTTTCTCACCACACTACCC  
 TATTCTCTGTGGCATTGCCCTGGAGATACTGAAAATAGTAATAACTGAGGAAACTCAGACTGAGGAACTCAGACTGGCAGACCCGG  
 CAGTGTGGTCTCCATATGCTGAGGCCGGTCCCTGGGCCACTGTTCTCTATACTTTGTCTGTGCTTCTGTTCTGAGGTTCAATACAGACC  
 CACCTGATGAGAAATACCCACAGGTGTGGAGGGCTGGCCCCCTTC  
**SEQ ID 76**

ATGGGGCAAACCTGAAAGTAAATGCTCTTATCTCAGCTTATTAAAATTCTTAAAGAAGAGGGGAGTTAGAGCTTCTACAGAAAATCTAATTA  
 CGCTATTCTAAACAATAGAACAACTCTGCCATGGTTCCAGAACAGGGAACTTGTAGTCAAAGGAAATTGGCAAAGAATTAAACA  
 AGCAAATAGGAAGGTAATCATCCCACCTACAGTATGGAATGATTGGCCTATTAAAGCACTTAAAGAACCATTTCAAACAGGAGAAGATATT  
 GTTCTGAGTCTGATGCCCTAAAGCTGTGAAACAGATTGTGAAGAAGAGGCAGGGCAGAACATCCAGCAAGAACGGAAAGTTCACATTGTAAT  
 ATGTAGCAGAGTGTGTAATGGCTCAGTCACGCCAAATGTGACTACAGTCATTACAGGAGATAATACCCCTGAATCATCAAATTGGGGAGG  
 AGGTCCAGAACATGGGGCATCAGGCCAACACCGATGCCATCAACTCCTCTCCGTGGTCAAGATGCCGTAAACATTACACCTCAAACG  
 CAGGTTAGACAAGCACAACCCCAAGAGAAAATCAAGTAGAAGGGACAGAGTCTATCCCGCAATGCCACTCAGATAACAGTATCCACAATATC  
 AGCCGGTAGAAAATAAGACCCAACCGCTGGTAGTTATCAATACCGCTGCCAACCGAGCTTCAGTATGCCCTCTCAGAGGTTCAATACAGACC  
 TCAAGCGGTGTCTCTGCCAAATAGCACGCCACCATACAGCAACCCACAGCGATGCCCTAATTCAACAGCAACACAGGACGCCGCTGTAT  
 CCTCAGGCCCAACTGTGAGACTTAACTCTACAGCATCAGTCAGTGTGACAGGGTGGTCACTGCTGCACTGAGTGAAGCCAGAAAACAGGCC  
 ATCTTGAGGCATGGCGTCTCTGTAATTACAACGGTACAGGCCGGGAGAGACTCAAGTAGGAGCGCTGCCCAGCTGAGACTAGATGTGA  
 ACCTTTACCATGAAAATGTTAAAGATATAAGGAAGGAGTTAAACAAATATGGATCCAACCTCCCTATATAAGAACATTATTGATTCTATTGCT  
 CATGGAAATAGACTTACTCTTATGACTTGGGAAATTGGCAAATCTCTTCTATCTCTCAGTATCTACAGTTAAACCTGGTGGATTGATG  
 GAGTACAAGAACAGGTACGAAAAAAATCAGGCTACTAAGCCACTGTTAATAGACGAGACCAATTGTTAGGAACAGGTCAAATTGGAGCACC  
 TAACCAACAATCAGTGTGAGAACAGGCTATTGAAACAAGTAAGGGCTATTGCTCTAGGGCTGGGAAAATTAGGACCCAGGAACAGCTTC  
 CCTATTAACTCAATTAGACAAGGCTCTAAAGGCCATATCTGACTTGTGCAAGATTACAAGATGCTGCTCAAAGTCTATTACAGATGACAATG  
 CCCGAAAAGTATTGAGAATTAGGCCATGAAATGCAAATCCAGAACATGTCAGTCGCCATAAGCCATTAAAGGAAAGTCCAGCAGGAGT  
 TGATGTAATTACAGAACATGTAAGGCTGTGATGGATTGGAGGAGCTATGCTAAGGCAATGCTAATGGCTCAAGCAATGAGGGGCTCACTCTA  
 GGAGGACAAGTTAGAACATTGGGAAAATGTTATAATTGTTGCTCAAATCGGTCACTGAAAAGGAGTTGCCAGTCTTAAATAACAGAACATA  
 TAAATCAAGCTATTACAGCAAAATAAAAGCCATCTGGCTGTGCTAAAGTGGAAAAGGAAACATTGGCCAATCAATGCTATTCTAAATT  
 TGATAAGGATGGCAACCATTGTCGGAAACAGGAAGAGGGCAGCCTCAGGCCACAAACTGGGCATTCCAGTTCAACTGTTGTTCT  
 CAGGGTTTCAAGGACAACAACCCCTACAGAAAATACCACTTCAGGGAGTCAGCCAATTACAACATCCAACAGCTGTCCCGGCCACAGCAGG  
 CAGCACCGCAGTAA

**SEQ ID 77**

ATGGGCGAGACCGAGAGCAAGTACGCCAGCTACCTGAGCTTCATCAAGATCCTGCTGCCGCGCCGTGCCGCCAGCACCGAGAACCTGATCA  
 CCTGTTCAGACCATCGAGCAGTTCTGCCCTGGTCCCCGAGCAGGGCACCTGGACCTGAAGGACTGGGAGAAGATCGGAAGGAGCTGAAGCA  
 GGCCAACCGCGAGGGCAAGATCATCCCCCTGACCGTGGAACGACTGGGCATCATCAAGGCCACCTGGAGGCCAGGAGCAGGCCAGGGCAGGACATC  
 GTGAGCGTGAGCGACGCCAAGAGCTGCGTACCGACTGCCAGGGAGGCCAGAGCAGGCCAGGGCAGAGCAGGCCACTGCAAGT  
 ACCTGGGCCAGAGCGTGATGGCCAGAGCACCGAGACAGTGGACTACAGCCAGCTGAGGAGATCATCTACCCAGAGCAGCAAGCTGGGAGGG  
 CGGCCCCGAGAGCCTGGCCCCAGCGAGGCCAACGCCCCAGCAGGCCAGCCCCCCCCCTGGTGCAGATGCCGTGACCTGCAGCCCCAGACC  
 CAGGTGCGCAGGCCAGAGCAGGCCAGAGCACCGAGTGGAGCGCAGCCGTGAGCATCCCCGCATGCCACCCAGATCCAGTACCCCGACTACC  
 AGCCCGTGGAGAACAGACCCAGGCCCTGGTGTACCAAGTACCGCTGCCACCGAGCTGCACTACCGCCCCCAGCGAGGTGCACTACCGCC  
 CCAGGCGTGTGCCCGTGCCAACAGCACCGCCCTACAGCAGGCCACCGCATGCCAGCAACAGCCCCCACCAGGACGCCCTGTAC  
 CCCAGCCCCCACCCTGCGCTGAACCCACCGCAGCCAGGCCAGGGCGCCCTGCAGCCGTGATCGACGAGGCCAGCAAGCAGGGCG  
 ACCTGGAGGCCTGGCGCTCTGGTGTACCTGCACTGGTGCAGGCCGGAGAGCAGGCCAGGTGGCGCCCGCGCAGACCCGCTGCAGA  
 GCCCCTCACCATGAAGATGCTGAAGGACATCAAGGAGGGCGTAAGCAGTACGCCAGAACAGCCCTACATCCGACCCCTGCTGGACAGCATGCC  
 CACGGCAACCGCCTGACCCCTACGACTGGGAGATCTGGCAAGAGCAGCTGAGCAGCAGCCAGTACCTGCACTCAAGACCTGGTGTACGAGC  
 GCGTGCAGGAGCAGGTGCGAAGAACAGGCCACCAAGCCACCGTGAACATCGACGCCAGCAGCTGCTGGGACCGGCCAACTGGAGCACCAT  
 CAACCAGCAGAGCGTGATGCAAGAACGAGGCCATCGAGCAGGTGCGCCATCTGCCTGCGCGCTGGGCAAGATCCAGGACCCGGCACGCCCTC  
 CCCATCACAGCATTGCCAGGGCAGCAAGGAGCCCTACCCGACTCTGCTGGCCCGCTGCAGGACGCCAGAACAGACATACCGACGACAACG  
 CCCGCAAGGTGATCTGGAGCTGATGGCTACAGAGAACGCCAACCCGAGTGCCAGAGGCCATCACAGGCCCTGAAGGGCAAGGTGCCGCCG  
 GGACGTGATCACCGACTACGTGAAGGCTGCGACGGCATGGCGCCATGCACAAGGCATGCTGATGGCCAGGCCATGCCGCCCTGACCTG  
 GGCAGGCCAGGTGCGCACCTCGCAAGAAGTGTACAACACTGCCAGATGCCACCTGAGGCCAGCTGCCCTGCTGAACAAGCAGAACATCA  
 TCAACCAGGCCATCACCGCAAGAACAGAACGCCAGCGGCCAGGCCAGTGCAGGCCAGGCAAGCAGTGGCCAACCAGTGCACAGCAAGTT  
 CGACAAGGACGCCAGGCCAGGCCAGCGCAACCGCAAGCGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCC  
 CAGGGCTCCAGGGCAGCAGGCCCTGCAGAACATCCCCCCCCTGCAGGGCGTGAAGCCAGCTGCAGCAGAACAGCTGCCGCCAGGCCAG  
 CGGCCAGGCCAGGCCAG

**SEQ ID 78**

MGQTESKYASLFSIKILLRRGGVRASTENLITLFQTEQFCFWFPEQGTLDLKDWKIGKELKQANREGKIIPLTVNDWAIIKATLEPFQTGEDI  
 VSVSDAPKSCVTDCCEEAGTESQQGTESSHCKYVAESVMAQSTQNVDSQLQEIIYPESKLGEPPESLGPSEPKPRSPSTPPVVQMPVTLQPQT  
 QVRQAQTPRENQVERDRVSIPAMPTQIQYPQYQPVENKTQPLVYVYQYRLPTELQYRPPSEVQYRPQAVCPVPNSTAPYQQPTAMASNSPATQDAALY  
 PQQPTVRLNPTASRGQGGALHAVIDEARKQGDLEAWRFVLQLVQAGEETQVGA PARAETRCEPFTMKMLDIKEGVKQYGSNSPYIRTLDSIA  
 HGNRLTPYDWEILAKSSLSSQYLQFKTWWIDGVQEQRKNQATKPTVNIDADQLGTGPNWSTINQSVQNEAEIEQVRAICLRAWGKIQDPGTAF  
 PINSIRQSKEPYPDFVARLQDAAKSITDDNARKVIVELMAYENANPECQSAIKPLKGKVPAVGVDVITEYVKACDGIGGAMHKAMLMAQAMRGLTL  
 GGQVRTFGKKCYNCQIQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKCGKHWANQCHSKFDKGQPLSGNRKRGQPQAPQQTGAFTPQLFVP  
 QGFQGQQPLQKIPPLQGVSQLQQSNSCPAPQQAAPQ

**SEQ ID 79**

MGQTESKYASLFSIKILLRRGGVRASTENLITLFQTEQFCFWFPEQGTLDLKDWKIGKELKQANREGKIIPLTVNDWAIIKATLEPFQTGEDI  
 VSVSDAPKSCVTDCCEEAGTESQQGTESSHCKYVAESVMAQSTQNVDSQLQEIIYPESKLGEPPESLGPSEPKPRSPSTPPVVQMPVTLQPQT  
 QVRQAQTPRENQVERDRVSIPAMPTQIQYPQYQPVENKTQPLVYVYQYRLPTELQYRPPSEVQYRPQAVCPVPNSTAPYQQPTAMASNSPATQDAALY  
 PQQPTVRLNPTASRGQGGALHAVIDEARKQGDLEAWRFVLQLVQAGEETQVGA PARAETRCEPFTMKMLDIKEGVKQYGSNSPYIRTLDSIA  
 HGNRLTPYDWEILAKSSLSSQYLQFKTWWIDGVQEQRKNQATKPTVNIDADQLGTGPNWSTINQSVQNEAEIEQVRAICLRAWGKIQDPGTAF  
 PINSIRQSKEPYPDFVARLQDAAKSITDDNARKVIVELMAYENANPECQSAIKPLKGKVPAVGVDVITEYVKACDGIGGAMHKAMLMAQAMRGLTL  
 GGQVRTFGKKCYNCQIQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKCGKHWANQCHSKFDKGQPLSGNRKRGQPQAPQQTGAFTPQLFVP  
 QGFQGQQPLQKIPPLQGVSQLQQSNSCPAPQQAAPQ

**SEQ ID 80**

GCGCGGAATTCGACTCTAGGCCATTGCATACGTTATCTATATCATAATATGTACATTATGGCTCATGCTAATGACGCCATGTTGA  
 CATTGATTATGACTAGTTATAATAGTAATCAATTACGGGTCAATTAGTCATAGCCATATATGGAGTCCGCTTACATAACTTACGGTAAATG  
 GCCCGCCTGGCTGACGCCAACGACCCCGCCATTGACGTCAATAATGACGTATGTTCCATAGTAACGCCAATAGGACTTCCATTGACGTCA  
 ATGGGTGGAGTATTCAGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATGCAAGTCCGCCCTATTGACGTCAATGACGGTAAATGG  
 CCCGCTGGATTATGCCAGTACATGCCATTACGGACTTCTACTTGGCAGTACATCTACGTATTAGTCATGCTATTACCATGGTATGGCT  
 TTTGGCAGTACACCAATGGCGTGGATAGCGTTGACTCACGGGATTTCACGGGATTTCACGGTCAATGGAGTTGTTGGC  
 AACATATAAGCAGAGCT  
 AAATCAACGGACTTCCAAAATGCTGATAAACCGCCCGTGTGACGCAAATGGCGTAGGGCTGTACGGTGGAGGTCTATATAAGCAGAGCT  
 CGTTTAGTGAACCGTCAAGTCGCCGGAGACGCCATCCACGCTGTTGACCTCATAGAACACCGGGACCGATCCAGCCCTCCGGCCGGGGAAAC  
 GGTGCATTGGAACCGGGATCCCCGTGCCAAGAGTGCAGTAAGTACCGCCTATAGACTCTATAGGCACACCCCTTGGCTTATGCTATACT  
 GTTTGGCTGGGCCATACACCCCGCTTCTATGCTATAGGTGATGGTATAGCTAGGCTATAGGTGGGTTATTGACCAATTATTGACCA  
 TCCCTATTGGTACGATACTTCCATTACTAATCCATAACATGGCTTGCACCAACTATCTTATGGCTATATGCCAATACTCTGTCTTCAG  
 AGACTGACACGGACTCTGTTACAGGATGGGCTCCATTATTTACAAATTACATATACAACAAACGCCGTCCCGTGCAGCTT  
 TATTAACATAGCGTGGGATCTCCACGCCAATCTGGTACGTGTTCCGGACATGGGCTTCTCCGGTAGCGCGAGCTTCCACATCCGAGCC  
 GGTCCCATGCCCTCAGCGCTCATGGTCGCTCGCAGCTCTGCTCCTAACAGTGGAGGCCAGACTAGGCACAGCACAAATGCCACCACCAAG

TGTGCCGACAAGCCGTGGCGTAGGGTATGTCTGAAATGAGCTCGAGATGGCTCGCACCGCTGACGCAGATGGAAGACTTAAGGCAGCG  
 GCAGAAGAAGATGCAGGCAGCTGAGTTGTATTCTGATAAGAGTCAGAGGTAACCTCCGTTGCGGTGCTGTTAACGGTGAGGGCAGTGAGTCT  
 GAGCAGTACTCGTTGCTGCCGCGCCACCAGACATAATAGCTGACAGACTAACAGACTGTTCCCTTCCATGGGCTTTCTGAGTCACCGTCg  
 tcgacgcaccatggccagaccgagagcaagtacgccagctacctgagcttcatcaagatcctgtcgccgcggcgtgcgcgcacccga  
 gaacctgatcacccgtttccagaccatcgagcagttctgccccctgttccccgagcaggccacccctggacactaaggactggagaagatccgcaag  
 gagctgaagcaggccaaccgcgaggcagatcatccccctgaccgtggaacactggccatcatcaagccaccctggagcccttcagaccg  
 gcgaggacatcgtgacgctgagcgcaccccaagagactgctgaccgtgaccgtgaggaggaggccgacccgagccagcaggcaccgagagc  
 ccactgcaagtaatcgcccgagagcgtgatggcccaagagcaccctgaaactgactacagccagctgcaggagatcatctaccccgagagc  
 ctggcgaggccggcccccagagccctggccccccagcagcccaagcccccagcagcccccagcaccctgggtgcagatgcccgtgaccctgc  
 agccccagacccagggtgcgcaggccagaccccccgcgagaaccagggtggagcgcaccgcgtgacatecccccattgcaccacccagatccagta  
 cccccagtagccaggccgtggagaacaagacccaggccctgggttaccactgcctgcccaccgagctgcaactaccggccatggc  
 cagtagtaccgcggccctgtgtccctgcccccaacagcaccgcaccctaccagcagccaccatggc  
 cagccacccggccaccaggac  
 cccgcctgtaccccaagcccccaccgtgcgcctgaaacccaccgcgacccgcagccgcagccgcaggccgcgcctgcacccgtgatc  
 gagccggccacccgtggaggcctggcgttccctggatctgcagctggcagggcggcggcggcggcggcggcggcggcggcggcggcggc  
 acccgctgcaaggcccttacccatgaagatgctgaaaggacatcaaggaggccgtgaaagcactacccgcacttgc  
 acagcatcggccacccgcctgacccctacgactggagatctggccaagagcagccgtgacccgcacttgc  
 gtggatcgcaggcgtgcaggcagggtgcgaagaaccaggccaccaaggccacccgtgaaacatcgacccgcaccgcacttgc  
 tggagcaccatcaaccaggcaggcgtgatcgcacccgcacccgcacttgc  
 gcaccgcctcccatcaacagcatcccccaggcaggcaggcaggcacttgc  
 cgacgacaacccgcacccgcacccgcacccgcacttgc  
 cccgcggcgtggcgttatccaggatcgcaggatcgcaggatcgc  
 ccccgccaggcccccaggcttaagaattcAGACTCGAGCAAGTCTAGAAAGCCATGGATATGGATTCAGCTACAGCCTAGAGCTCGCTGATC  
 AGCCTCGACTGTGCCTCTAGTTGCCAGCCATCTGTGTTGCCCTCCCTGACCCCTGGAAGGTGCCACTCCACTGTCCTTCC  
 TAATAAAATGAGGAAATTGCATGCATGTCATGAGTAGGTGTCATTCTATTCTGGGGGTGGGGTGGGGCAGGACAGCAAGGGGAGGATTGGGAAAG  
 ACAATAGCAGGGGGTGGCGAAGAACCTCAGCATGAGATCCCGCGTGGAGGATCATCCAGCCGCGTCCCGGAAACGATTCCGAAGGCCAAC  
 TTTCATAGAAGGCCGCGTGGAAATCGAAATCTGTGATGGCAGTTGGCGCTCGTGGCGTCAATTGCAACCCAGAGTCCCGCTCAGAAGAAC  
 TCGTCAAGAAGGCCATAAGAGGCGATGCCGCTGCAATCGGGAGCGCGATACCGTAAAGCACGAGGAAGCGGTGAGCCATTGCGCCAACTCTT  
 CAGCAATATACGGGTAGCCAACGCTATGTCCTGATAGCGGTCCGCCACACCCAGCCGGCACAGTCGATGAATCCAGAAAAGCGGCCATTTCAC  
 CATGATATTGGCAAGCAGGCATGCCATGGTCACGAGACATCTCGCCGTCGGCATGCGCGCTTGAGCCTGGCGAACAGTTGGCTGGCG  
 AGCCCGTGTGCTTCAGATCATCCTGATGACAAGACCGGCTCCATCCGAGTACGTCGCTCGTGTGCGATTTGCGTTGGTGTGCA  
 ATGGGAGGTAGCCGATCAAGCGTATGCAAGCGCCGCATTGATCAGCATGATGGAACTTCTCGCAGGAGCAAGGTGAGATGACAGGAGATC  
 CTGCCCGGCACTTCGCCAATGAGCCAGTCCCTCCCGCTTCAGTGCACAACTGCGAGCAGCTGCGCAAGGAACGCCGTGTTGGCCAGCAC  
 GATAGCCGCGCTGCTCGTCTGAGTCATTAGGGCACCGGACAGGTGGCTTGACAAAAGAACCGGGCGCCCTGGCGTACAGCCGGAACA  
 CGGGCATCAGAGCAGCCGATTGTCGTTGCCCCAGTCAGCCGATAGCCCTCCACCAAGCGGGCGAGAACCTGCGTGAATCCATCTT  
 TTCAATCATGCAAACGATCCTCATCTGTCTTGATCAGATCTGATCCCCTGCGCCATCAGATCTTGGCGCAAGAACCCATCCAGTTACT  
 TTGCAAGGGCTTCCAAACCTTACAGAGGGCGCCCAAGCTGGCAATTCCGGTTGCTGTGTCATAAAACGCCAGTCAGTATGCCATGTA  
 GCCCACTGCAAGCTACCTGCTTCTTGCCTTGCCTTCCCTCGTCACTGACTCGCTGCGCTCGTGGCTGCGGAGCG  
 CGGACTGGCTTCTACGTTGCTCCCTTCTAGCAGCCCTGCGCCCTGAGTGCCTGCGGAGCGTGAAGCTAATTGTTAAATTGGTTAA  
 ATCAGCTCATTTTTAACAAATAGGCCAAATCGCAAACCTTATAAAATCAAAGAACATAGCCGAGATAGGGTTGAGTGTGTTCCAGTTGGA  
 ACAAGAGTCACATTAAGAACGTTGACTCCAACGTCACAGGGCAAAACCGCTATCAGGGCAGTGGCCGATCAGCTATGCGGTGTA  
 CCGCACAGATGCGTAAGGAGAAAATACCGCATCAGGGCTTCCCTCGTCACTGACTCGCTGCGCTCGTGGCTGCGGAGCG  
 TATCAGCTACTCAAAGGCCGTAATACGGTTATCCACAGAACATAGGGATAACGCAAGGAAAGAACATGAGCAGAACAGGCA  
 CCGTAAAGGCCGCGTGTGGCTTCCCTAGGCTCCGCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAACCCG  
 ACAGGACTATAAGAACGAGCCGTTCCCTGGAGCTCCCTCGTGCCTCTCTGTCAGGCTACGGCTACACTAGAACAGCTATGGTATCT  
 TCCCTCGGGAGCGTGGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGCTAGGTGCTGCTTCAAGCTGGCTGTGCA  
 CCCCGTTCAGCCGACCGCTGCGCTTATCCGTAACATCGTCTGACTCCAACCCGGTAAGACACGACTTATGCCACTGGCAGCAGCCACTGGT  
 AACAGGATTAGCAGAGCGAGGTATGAGGGCGTGCTACAGAGTCTGAGTGGCTTAACACTACGGCTACACTAGAACAGCTATGGTATCT  
 GCGCTCTGCTGAGGCCAGTTACCTCGAAAAAGAGTTGGTAGCTCTGATCCGGCAACAAACCCGCTGGTAGCGGTGGTTTTGTTGCAA  
 GCAGCAGATTACCGCAGAAAAAGGATCTCAAGAAGATCCTTGATTTCTACTGAACGGTATCCCACCGGAATTGCG

**SEQ ID 81**

ATGAACCCAAGCGAGATGCAAAGAAAAGCACCTCCGCGGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAGATGAA  
 CAAAGAACAGATGAGTGCATCCACCAAGAGGCAGAGCCGCAACTTGGGCAAACTAAAGAACGCTGAGCAGTTAGCTACAAAATCTAGA  
 GAACACAAAGGTGACACAAACCCAGAGAGTATGCTGCTTGCAGCCTTGTGATGATTGATCAATGGGTAAGTCTCCATGCGCTGAGCAGCT  
 GCAGCTAACTATAACCTACTGGCCTATGTGCCTTCCGCCCTAATCGGGCAGTCACATGGATGGATAATCCTACAGAACAGTATGTTAATGATA

25/25

GTGTATGGGTACCTGGCCCCATAGATGATCGCTGCCCTGCCAACCTGAGGAAGAAGGGATGATGATAAATATTCCATTGGGTATCATTTATCCTCC  
 TATTGCTAGGGAGAGCACCGAGATGTTAATGCCTCAGTCAAATTGGTTGAGAAGTACTACTGTCACTCCCCTATGTAGATTCACTTAT  
 CACATGGTAACGGGATGCACTCAGGCCACGGTAATTATTTACAAGACTTTCTATCAAAGATCATTAAAATTAGACCTAAAGGAAACCTT  
 GCCCCAAGGAAATTCCCAAGAATCAAATTACAGAAGTTTAGTGGGAAGAATGTGTGGCCAATAGTCGGGTGATATTACAAAACAATGAATT  
 CGGAACATTATAGATTGGCACCTCGAGGTCAATTCTACCAATTGTCAGGCAAACACTCAGTCGTGTCAGTGCACAAGTGAGTCCAGCTGTT  
 GATAGCGACTTAACAGAAAGTTAGACAAACATAAGCATAAAAAATTGCACTTCTACCCCTGGGAATGGGGAGAAAAGGAATCTCTACCCCAA  
 GACCAAAATAGTAAGTCTGTTCTGGTCTGAACATCCAGAATTATGGAGGCTACTGTGGCTCACACCACATTAGAATTGGTCTGGAAATCA  
 AACTTAAACAAAGAGATCTAACGCTAAGCCATTAACTATTGACCTGATTCCAGTCAACAGTCTTACAAAGATTGCGTAAAGCCCCCTATATG  
 CTAGTTGAGGAAATATAGTTAAACAGACTCCAGACTATAACCTGTGAAATTGTAGATTGCTTACTTCGATTGATTCAACTTTAATTGGC  
 AACACCGTATTCTGCTGGTGGAGAGCAAGAGAGGGCGTGGATCCCTGTGTCATGCCGACCCGGGGAGGCCATCGCCATCGCCATTGAC  
 TGAAGTATTAAAGGTGTTAAATAGATCCAAAGATTCACTTTACTTTAATTGCACTGATTATGGGATTAAATGCACTGACAGCTACGGCTGCT  
 GTACCCAGGAGTTCATTGCACTCTCTGCACTGAACTTTGTTAATGATGGCAAAATTCTACAAAGATTGCAATTGCGTAAAGGAAATTCAACATCTAGTA  
 TTGATCAAAATTGGCAAATCAAATTAAATGATCTTAGACAAACTGTCAATTGGATGGAGACAGACTCATGAGCTTAGAACATCGTTTCACTTACA  
 ATGTGACTGGAATACGTCACTTTGTTAATCACCCCAAATTATAATGAGTCTGAGCATCACTGGGACATGGTAGACGCCATCTACAGGAAGA  
 GAAGATAATCTCACTTAGACATTCCAAATTAAAAGAACAAATTTCGAAGCATCAAAGCCATTAAATTGGTGCAGGAACTGAGCAATTG  
 CAGGAGTGTGATGGCCTCGCAAATCTAACCTGTCACTGGGTTAAGACCAATTGGAGTACTACGATTATAATCTCATATTAACTCTGTGTC  
 CCTGTTTGTGTTAGTCTGCAGGTGACCCAACAGCTCGAAGAGACAGCAGGACATCGAGAACGGCCATGATGACGATGGCGTTGTG  
 AAAAGAAAAGGGGAAATGTGGGAAAGCAAGAGAGATCAGATTGTTACTGTGTGCGCTAA

**SEQ ID 82**

ATGAAACCCCAGCGAGATGCACCGCAAGGCCCCCCCCCCCCCCCCCCCCACCGCAACCGCCCCCTGACCCACAAGATGAAACAAGATGGTGACCA  
 GCGAGGAGCAGATGAAGCTGCCAGCACAAGAAGGCCAGGCCACCTGGGCCAGCTGAAGAAGCTGACCCAGCTGGCCACCAAGTACCTGGA  
 GAACACCAAGGTGACCCAGACCCCCCGAGACATGCTGCTGGCCGCCCTGATCGCGCCGTGACCTGGGACAACCCACCGAGGTGACGTGAAACGACA  
 GCGCCCAACTACACCTACTGGGCTACCGCCCTTCCCCCCCCCTGATCGCGCCGTGACCTGGGACAACCCACCGAGGTGACGTGAAACGACA  
 GCGTGTGGGTGCCCGCCCATCGACGCCGTGCCCCCGCAAGCCCCAGGGAGGGCATGATGATCAACATCAGCATCGGCTACCAACTACCC  
 CATCTGCCTGGCCCGCGCCCCCGCTGCTGATGCCCGCGTGCAGAACTGGCTGGAGGTGCCACCGTGAAGCCCATCTGCCGCTTACCTAC  
 CACATGGTGAGCGGCATGAGCTGCGCCCCCGCTGAACTACCTGCAAGGACTTCAGCTACCAGCCAGCCTGAGTTCGCCCCAAGGGCAAGCCCT  
 GCCCCAAGGAGATCCCAAAGGAGAGCAAGAACACCGAGGTGCTGGTGTGGAGGAGTGCCTGGGACAACAGGCCGTGATCCTGCAGAACACGAGTT  
 CGGCACCATCATGACTGGCCCCCGGCCAGTCTACCAACTCAGCGGCCAGACCCAGGACTGCCCCAGCGCCAGGTGAGCCCCCGCGTG  
 GACAGCAGCTGACCGAGAGCCTGGACAAGCACAAGCAGCAGGCTGAGAGCTGGCTGGGAGGAGCCATCAGCACCCCC  
 GCCCCAAGATCGTGAAGGCCCGTGAAGCGGGCCAGCAGCCCCGAGCTGGCGCCCTGACCGTGGCCAGCCACATCCGATCTGGAGCGCAACCA  
 GACCCCTGGAGACCCCGGACCGCAAGCCCTCTACACCATCGACCTGAACAGCAGCAGCTGACCGTGGGCTGCAAGCTGCGTGAAGCCCCCTACATG  
 CTGGTGTGGCAACATGTGATCAAGCCGACAGCAGACCATCACCTGCGAGAACTGCGGCCCTGACCTGCATCGACACCTTCAACTGGC  
 AGCACCGCATCTGCTGGTGTGCGGCCCGGAGGGCGTGGATCCCCGTGAGCATGGACCGCCCTGGGAGGCCAGCGTGCACATCTGAC  
 CGAGGTGCTGAAGGGCGTGTGAACCGCAGCAAGCGCTCATCTCACCCCTGATGCCGTGATCATGGGCTGATGCCGTGACCGCCACCCCGCC  
 GTGGCCGGCGTGGCCCTGACACGAGCTGCAACTTCGTGAACGACTGGCAGAAGAACAGCAGCCCTGTGGAACAGCCAGCAGCA  
 TCGACAGAGCTGGCAACCGAGATCAACGACCTGCGCCAGACCGTGATCTGGATGGCGACCGCCCTGATGAGCTGGAGCAGCCCTTCAACTGCA  
 GTGCGACTGGAACACCGAGCAGCTGCACTACCCCGAGATCTACAAACGAGAGCGAGCAGCAGCTGGGACATGGTGCAGCCGACCTGCGAGGCC  
 GAGGACAACCTGACCCCTGGACATCAGCAAGCTGAAGGAGCAGATCTCGAGGCCAGCAAGGCCACCTGAACCTGGTGCAGCCGACCGAGGGCAGTC  
 CCGCGTGGCCGACGCCCTGGCAACCTGAACCCCGTGACCTGGGTAAGACCATCGCAGCACCCATCATCAACCTGATCTGATCTGGTGTG  
 CCTGTTCTGCTGCTGCTGGTGTGCGCCTGACCCAGCAGCTGCGCCGACAGCGACCCACCGCGAGCGCCATGACCATGGCCGTGAGC  
 AAGCGCAAGGGCGGACAGTGGCAAGAGCAAGCGGACCCAGATCGTGAACCTGAGCGTGGCCCTAA

**SEQ ID 83**

MNPSEMQRKAPPRRRRRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQIATKYLENTKVTQTPESMILLAALMIVSMVVSLPMPAGAA  
 AANYTYWAYVPFPPLIRAVTMDNPTEVYVNDSVWPGPIIDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPICRFTY  
 HMVSGMSLRPRVNYLQDFSYQRSLKFRPKGKPCPKEIPKESKNTEVLWEECVANSAVILQNEFGTIIDWAPRGQFYHNCSGQTQSCPSAQVSPAV  
 DSDLTESLDKHKHKKLQSFPWEWGEKGISTPRPKIVSPVSGPEHPELWRLTVAHHIRIWSGNQTLERDRKPFYTDLNSSLTVPLQSCVKPPYM  
 LVVGNIVIKPDSQTITCENCRLLLCIDSTFNWQHRIILVRAREGVWIPIPVSMDRWEASPSVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAA  
 VAGVALHSSVQSVNFVNDWQKNSTRLWNNSQSSIDQKLANQINDLRQTVIWMDRLLMSLEHRFQLQCDWNTSDFCITPQIYNESEHHWDMVRHLQGR  
 EDNLTLDISLKKEQIFEASKAHNLNVPGTEAIAGVADGLANLPVTWVKTIGSTTIINLILILVCLFCLLVCRCTQQLRRDSDHRERAMMTMAVLS  
 KRKGGNVGKSQRDQIVTVSVA